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ABSTRACT

The manual details a behavioral and developmental assessment procedure, treatment techniques and method of planning home training programs for mentally retarded children. Focus is on normal preschool development up through 5 years of age. Aims are to help the child function at maximum level by providing practical suggestions to parents for stimulating the child's development (behavioral and perceptual motor skills in particular). Discussed are selection of families for home care services and assessment rationale. An extensive assessment battery is presented as a basis for treatment planning, utilizing techniques of occupational therapy. The battery, with a graduated rating system, encompasses six skill areas: basic senses and functions, perceptual motor, fine motor, gross motor, behavioral, and daily living activities. It applies to children functioning from 3 months to 6 years of age. Methods of planning training programs, specific techniques, progression of skills, and equipment are discussed and four sample occupational therapy home programs presented. Appendixes include samples of completed assessment and treatment forms, the rating scale applied to several specific activities, and more sample home programs. The assessment battery is also published separately (See EC 033 394). (KW)

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HOME CARE AND MANAGEMENT
OF
THE MENTALLY RETARDED CHILD

Shirley German Vulpe

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NATIONAL INSTITUTE ON MENTAL RETARDATION
OF THE
CANADIAN ASSOCIATION FOR THE MENTALLY RETARDED
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by

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SGV

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PREFACE

This manual describes a behavioral and developmental assessment procedure, treatment techniques and a method of planning treatment. It was prepared originally to complement a series of two week courses on "Home Care and Management of the Mentally Retarded Child," sponsored by the Canadian Association for the Mentally Retarded. The courses were attended by social workers, nurses, teachers, psychologists, occupational therapists and other professional personnel from across Canada. Much of the material in the manual is, however, applicable not only to home care, but to institutional and school settings as well.

The focus is on normal pre-school development up to and including chronological age five. Application, however, can be developed for the mentally retarded up to fifteen years chronological age. Naturally, activities suitable for a fifteen year old and a five year old will be different, however, activities can be adapted to suit specific purposes, and several different activities can be utilized to develop any one skill.

Although the focus of this manual is the mentally retarded child, much of the content, theories, treatment techniques, and the assessment procedure itself are applicable to assessment and treatment of pre-school atypically developing children from many diagnostic categories (e.g. physically handicapped, emotionally disturbed, sensory handicap).

In each case, the treatment will focus on the specific characteristics of the child's handicap and the specific treatment procedures incorporate the method of treatment planning which is outlined in the manual.

FOREWORD

Home Care, "family strengthening" and associated services for pre and early school age children with developmental handicaps are beginning to receive increasing attention. This is in recognition of the growing evidence relative to the importance and influence of environmental factors.

This manual arose out of direct experience in developing training programs in Home Care. It represents an attempt to organize and condense pertinent information relevant to home care and management of mentally retarded children. "Assessment", per se, has traditionally been an area strictly reserved for the "Professional" person. The manual attempts to describe a flexible method which can be utilized by the volunteer and parent as well as the broad array of professional people involved in assessment and treatment.

This is among the first publications of the National Institute on Mental Retardation.

The Institute is the newly developing training, research and national information arm of the Canadian Association for the Mentally Retarded. It will be housed in a separate building situated on the campus of York University, Toronto.

The primary functions of the Institute concern research utilization (translation and application of theory into practice), meeting the manpower (personnel training) needs, and serving as a central information, consultation and program development resource on a national basis. By virtue of its activities and working relationships with institutions of higher learning including other research and service oriented organizations representing both the public and private sector and the Canadian Association for the Mentally Retarded network of Provincial and Local Associations throughout Canada, the National Institute on Mental Retardation will strive to jointly generate increased efforts toward combating the problem of Mental Retardation.

The leadership and contribution of the Author, Mrs. Shirley G. Vulpe, is gratefully acknowledged. The generous support of the International Ladies Garment Workers Union, Department of National Health and Welfare and the Associations for the Mentally Retarded have made it possible to conduct a series of courses in Home Care, and will ensure optimum utilization of this manual in the future.

A test battery accompanies this manual.

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INTRODUCTION

AIMS

Mental retardation is a primary health problem in the world today. When a child is diagnosed as being retarded, he becomes a part of this problem; he is different and his needs are special. The role of those who work in the field of mental retardation is to help these children in every way possible. This includes helping the parents with the difficult task of raising a special child to live as full and happy a life as possible. A home care program offering support and practical suggestions to the parents about the care and management of the retarded child in the home is one of the ways in which medical and paramedical professionals can fulfill their role.

The aims of this type of program are: 1) to help the parents and the child function at the maximum of their abilities by providing support and home programs in an attempt to reduce the effects of the handicap upon the child, so that he may live happily within our social system with the best possible integration. 2) to help the parents with the care and management of the child while he is young, thus attempting to prevent later maladaptation occurring as a result of early mismanagement. 3) to reduce the frustration of parents who want to provide what is best for their child through teaching and counselling about the special techniques which may be required of them to meet the needs of their retarded child.

These aims may be further delineated by talking in terms of ego support for the parents and of supporting ego development in the child.

1) PARENTS - We attempt to provide ego support by a) emphasizing their actual achievements, b) providing success experiences for them in their interaction with the child, and c) teaching them to understand the child's developmental pattern in terms of concrete activities.

2) CHILD - We attempt to support ego development by a) providing an environment adapted to his needs, b) providing reinforcing relationships, c) providing standards and expectations appropriate to his developmental level, and d) assuring that these standards and expectations are meaningful to him, thus allowing him a sense of personal control within his environment.

RATIONALE

Home programming attempts to achieve the above aims by beginning the parent-child involvement as early as possible, using available knowledge of growth and developmental patterns and learning theory, teaching and demonstration sessions with the family, progressing gradually, and reviewing periodically to insure that the child's basic needs are being met.

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The nature and severity of mental retardation will depend on the extent and location of the central nervous system damage. Thus, all planning should be based on thorough expert medical assessment and developed through use of all relevant resources.

That the first few years of life provide the foundation upon which all further learning develops in social, emotional and intellectual areas, is well documented. Therefore, adequate and appropriate training while the child is young and at home may be considered as preventive medicine if it will help to alleviate problems of adjustment during later years. Therefore, effective treatment implies early casefinding and immediate programming. In addition, the provision of help and guidance to parents during the initial phases of adjustment to their child's disability reduces the development of inappropriate methods with and attitudes of the child.

Both the stages and the plateaus of development are considered in planning activities. An approach which follows developmental stages is used because it offers the most logical sequence of activities in all areas of living. The stages are common, in one form or another, to all children; however, in atypical development it is not the developmental sequence which is different, but the rate and pattern of development. Thorough assessment will reveal this rate and pattern, including the strengths and weaknesses of the child's performance. In programming, the strengths are emphasized to reduce weaknesses as long as the deficient or weak areas have not been developed to maximum potential, thus contributing to the child's future pattern or rate of development.

In normal development the transition from one stage to another is not always easily detected. On the other hand, the time between stages may be more prolonged with a child whose development is delayed. This should be explained to the parents; and it may be necessary, over a long period of time, to provide them with different activities which offer a variety of stimuli at the same developmental level. Normal development proceeds from one simple learning task to a somewhat more complicated skill related to the initial learning. Once again, when development is slow, this progression from the simple to the complex is more gradual and parents may require special guidance in this area.

The provision of concrete suggestions and activities at the developmental level of the child within the home environment enables the parents to optimally challenge the child. This provides an early environment in which the child can be successful and contribute to himself and his family in a positive way. Thus it is hoped the child will have the foundations required to meet the ever-increasing demands of society before he enters school.

There are three principles derived from learning theory which are considered to be most influential in determining what and how much is learned[3]. 1) Learning takes place as a function of reward or reinforcement. 2) One learns what one does. 3) Learning takes place when there is a purpose for its taking place. The design of programs to teach either parent or child incorporates these principles and includes activities which will be successful, which can be done, and for which a purpose is perceived.

Learning is a step-by-step process and therefore all activities described in this manual reflect a step-by-step approach. At times this involves an attempt to break each activity into its component parts and to teach it part by part.

The demands for adjustment to our society are the same for the mentally retarded as for any individual. All the basic needs must be met. The retarded person must experience love, acceptance and success in order to develop a healthy image of himself. He must receive appropriate schooling and education, and there must be a place for him in the adult world. The difference for the retarded individual is, of course, his handicap. This affects not only his ability to adjust to the environment, but also, the environment's ability to adjust to him. The criteria for adjustment may be the same, but it is sometimes difficult to meet the needs of a handicapped child, and so the means of achieving adjustment will be different. Treatment and training attempt to provide methods for fulfilling basic needs for love, acceptance and success as well as for appropriate education and a place in the adult world.

A review of related literature and consideration of the relationship of the retardate's abilities to community facilities available led to the emphasis on early home care and training for retarded children. This training, which includes social perceptual-motor skills, is fundamental to the future adjustment of the handicapped child.

Appropriate social behavior is essential for the retardate, in order that he may remain in his community and develop his abilities accordingly. In the home his behavior must be acceptable to the rest of the family and the immediate community. In school he must adjust to the group and follow the rules and regulations of the educational system. If his present occupation is going to school, or employment in a workshop, he must arrive on time, get along with his co-workers, be able to tolerate frustration and work steadily with attention for adequate periods of time. Just as behavior may be the deciding variable between staying in the home or being placed in an institution; it can also be the deciding variable for achievement at the maximum level.

Perception may be defined as the ability to recognize stimuli. This consists of the recognition of stimuli in the sense organ and the identification and interpretation of these stimuli in the brain. There are many different types of perceptual abilities, some of these are: perception of space, size and shape, and perception of the body. Skill in perceptual tasks is imperative if the child is to obtain independence in daily living. For example, in order to put one's arm into a sleeve, one needs to perceive the arm, the arm in relationship to the sleeve opening and the sleeve in relationship to the blouse. Similarly, in a factory assembly line, the worker may be required to choose a specific piece to fit into a definite place within a specified period of time.

Hayden[21] in his work on perceptual-motor training for retardates, using Goldman's Perception Training Machine,[34] points out that retardates are subject to perceptual dysfunction and that they often improve in their ability to function as a result of very specialized perceptual-motor training.

In Ayres'[2,3,4], developmental sequence of perceptual development, the last phase contains two areas provided for in the training of all but the most profoundly retarded, namely, activities of daily living and prevocational skills. As both skills are in the last phase of perceptual-motor development, skill in the earlier phases is a prerequisite for their accomplishment.

Trainable retardates are generally described as ultimately developing to the intellectual level of a seven year old. Jean Ayres'[2] scheme shows how much of the development, proceeding at its slower rate in these children, falls in the sensory-motor field. Laura Lehtinen also describes the learning demands of the first three primary grades as perceptual, integrative, and mnemonic in nature rather than conceptual. Therefore, the therapist must bear in mind that if the intellect of a retardate is to develop to the level of a second grader, much of his academic learning will be based on perceptual skills.

A retardate, if he is to be independent, must learn to recognize certain words such as DANGER and EXIT. He may not have the conceptual ability to learn to spell the words, but he will be able to learn to recognize the word by its specific shape, the color of the background and the places it is usually seen.

The motor component in the perception-motor complex involves having the motor ability to act on what you perceive: stop on the danger sign, go out at the exit sign, put the arm in the sleeve and place the pieces in the hole within the required period of time.

Thus, the importance of physical activity geared to improve motor strength, skill, accuracy and coordination is essential to the total development of the retardate. Failure to bring a retarded person to his best performance level in perceptual and motor skills might undermine his capacity to master skills for which he has the potential and could disadvantage him emotionally as well as intellectually.

SELECTION OF PARENTS AND CHILDREN FOR HOME CARE SERVICES

The selection of families for home programs should be on a highly individual basis and depends very much on the facilities and medical personnel in the respective area. Home care programs are ideally geared to the pre-school retarded child; however, this presupposes that physicians will diagnose and refer children at a young age and that there are appropriate school facilities available when the child is eligible to attend school. In many communities, therefore, it may be that pre-school will be a figure of speech having nothing to do with age and a great deal to do with the lack of appropriate facilities and programmes. In these instances home care programs may involve a group having a wider age range. It is of interest to note that in some areas parents have formed cooperative nurseries in an effort to deal with the problem. Multi-handicapped children can, of course, receive home programs, but may also require specialized medical attention for other disabilities.

In the majority of cases, the selection of families for home care programs is primarily a matter of judgment and timing as to what is most needed, and the availability of appropriate treatment. The decision should be the result of informal interviews with the family. It is important to ask parents what they would like to know about their child and/or what they would like to do for their child. Possible alternatives can be presented while encouraging the family to present their opinions. If parents fail to recognize things considered vital, the interview should allow sufficient time for discussion and clarification. It is very important when working with families to realize and respect the fact that the majority of parents do the very best they can in view of their particular circumstances. Therefore, the assuming of responsibility for matters over which parents have no control should be avoided during the interview.

Responsbility is a process of mutual concern and energy and it should be pointed out that the professional worker is as susceptible as anyone else to shirking responsibility. Encouragment, and reinforcement of the fact that the parent is the first "teacher", and as such spends the majority of hours with the child, should be emphasized. A spirit of teamwork between parent and professional will result in the application of methods and techniques of home care most suitable and beneficial to all concerned.

If there is any blame to be placed, perhaps it is the professionals and not the parents who should be shouldering that blame. For too many years we have been satisfied with only a few hours a week of treatment, concentrating on our books and hospitals, and ignoring the fact that it is the parents who spend almost every waking hour with the child. Realistically speaking then, and keeping the ultimate happiness of the child in mind, it makes better sense to try and teach the parents to understand and use all the available knowledge about care and management of the retarded which could be pertinent to their child.

This is not to say that home care is a panacea. Naturally, it is most effective in the case of healthy, interested parents who require minimum time and energy from the professional working with them. Of course there are disturbed parents of retarded children who require more intensive and more specialized help than home care would ordinarily provide. There are also retarded children with degrees of retardation and/or behavior disturbance which would make home care an impractical form of treatment.

SETTING AND STAFF

Plans for setting up home care services will vary from community to community depending on the needs of the area and the availability of appropriate medical and para-medical personnel. Two possibilities would be to provide family consultation and home programming through local or traveling mental health units, or to establish home care volunteer services under the supervision of medical personnel in areas where there is a shortage of professional personnel. An example of the incorporation of home programming into a treatment setting is provided by the following explanation of the setting in which this approach was conceived.

The Montreal Children's Hospital is a large urban teaching hospital associated with McGill University. The Pre-School Treatment Unit consists of a multi-disciplinary team working with a pilot research project for the assessment and treatment of pre-school mentally retarded children. It is a branch of the Mental Assessment and Guidance Clinic which serves mentally retarded children as a part of the Department of Psychiatry. The Occupational Therapy Department is one of the many paramedical departments. It has seven therapists treating patients with all types of childhood diseases and disabilities. The Occupational therapist responsible for treatment of mentally retarded children is a member of the pre-school treatment team.

A multi-discipline team was chosen for the Pre-School Treatment Unit in order to cover treatment and training from several points of view. The initial team consisted of a director with educational and social work background, two part-time psychiatrists, a consultant pediatrician, two social workers and two part-time nursery school teachers (one English speaking and one French speaking) a psychologist and an occupational/physical therapist.

It was felt that each member of the team would have a role in the assessment of the children, while treatment and training for the children were to be provided by the nursery school teachers, the occupational therapist and an organized volunteer program.

The nursery school teacher provided home programs for the children in the nursery group. The volunteers, supervised by a social worker or psychiatrist and an occupational therapist, provided home programs for children referred to the volunteer program. Home programming was one of several different types of treatment offered by the occupational therapist. The roles of the nursery school teachers and the occupational therapist were different in that the teacher worked with trainable retarded children between 3 and 6 years of age who could benefit by participation in a group program. The occupational therapist worked with children between 3 and 6 years of age who could not participate in a group program because of behavior, perceptual-motor or sensory deficits. She also saw the younger retarded, from birth to 3 years of age.

The increase of individual case loads, awareness of unmet needs, untapped abilities of the parents and the success of the volunteer program prompted the development of programs to help parents with the home management of their children. Home programming was both a means of carrying a larger case load per therapist and a means of teaching parents what they wanted and needed to know. The example of the volunteer program demonstrated that this type of planning was possible even with limited time available for supervision.

ASSESSMENT FOR TREATMENT

ASSESSMENT RATIONALE

Planning treatment programs for the retarded child involves a comprehensive and complete assessment of the child, his family and his home. This includes establishing a diagnosis and determining the level of retardation, in addition to considering family dynamics and social situation. This type of information is provided by the pediatrician, psychiatrist, psychologist and social worker.

If the child fits the occupational therapy criteria for home programming he is assessed with the view of providing treatment. The assessment procedure is a battery which has been designed to 1) organize all material available from previous assessments, 2) evaluate the child's optimal performance in basic skills in all relevant areas of development, 3) determine the circumstances under which he functions at an optimum level and 4) indicate treatment aims and methods.

This assessment battery is presented at the hospital, but it is complemented by a home assessment for those children presenting management problems in the home.

ASSESSMENT OF THE HOME ENVIRONMENT

Assessment of the home environment complements the knowledge gained from the skill assessment and is necessary if the program is to be realistically geared to the needs of the family. This assessment helps the worker plan recommendations for activities to be carried out in the home and by the family. Home assessment involves looking at the physical and emotional setting in the home and coordinating this information with any other information about the family which is available from other sources.

The four areas which will have the most effect on home programming are discussed below. They are the daily routine, the structure of the household, the equipment in the house for the child and family, and the behavior of the child in the home setting.

Assessment of the daily routine can indicate where the emphasis in treatment is needed. This is accomplished by asking the parents to review a typical day from the time they get up until they go to bed, with emphasis on the schedule of the child in question. It is very important to see if all the basic needs of both the parents and the child are being considered within the daily routine. Are they getting enough sleep, enough to eat, enough emotional gratification? These basic needs must be met before home programming can be considered. Some other questions which might be asked in assessing the daily routine are: How busy is the mother? How many children are there? How much of the mother's time is spent with the child? How much of the day is the child required to amuse himself? Does the mother have any free time? How flexible or inflexible is the foutine? Does the child have any preferred type of activity?

It is important to assess the structure of the household if the child is having difficulties adapting to his environment, as this will help identify the cues necessary to help modify the environment. Assessing the structure involves looking at the house. How many rooms are there? Are there separate bedrooms for children and the parents? Do things have their place? What is the arrangement of the rooms and belongings? Is the environment over or under-stimulating for the child at his level of functioning? How does the child fit into the household environment? Is he disrupting or does he follow the routine and rules adequately?

Looking at the equipment and toys in the house will help determine if any changes or additions may be suggested to help with the child in the home. Seeing if the family has toys and furniture appropriate to the needs of the child is important because toys that are too hard or too easy for the child can cause difficulty, as can lack of beds or appropriate chair and table facilities.

In conjunction with the assessment of work habits and behavior of the child during testing, it is important to look carefully at the child's behavior in the home environment in order to make appropriate recommendations or to give appropriate support to the parents in the area of behavior management. This assessment is best done by observing the child and the mother in the home and through informal discussion with the mother.

Questions which will require answers are: Is the child well behaved or is he unmanageable in the home? What are the behavioral manifestations of the child's mental age? Is the behavior typical or is he reacting to a visitor? Does the mother set limits on the child's behavior or does she try to ignore it or make allowances for it? Is the mother capable of setting limits or is she too angry or guilty about the child? Are the limits set on the child realistic in view of his mental age and the environment in which he lives?

All of the information gleaned from this assessment should be combined with that obtained from the skill assessment and the information available from other sources in order to plan the most feasible and realistic help for the parents in the care and management of their child at home.

ASSESSMENT BATTERY

The battery is a method of assessment on which to base treatment planning, utilizing the techniques and procedures of Occupational Therapy. It was developed over a four-year period and includes an assessment battery and a graduated rating system. The assessment is a tool designed for acquiring and organizing the information felt to be necessary for occupational therapy for any childhood disability. The rating system aims at providing both the delicate measurement of performance necessary to teach skills and also a method of communicating this information which facilitates continuity and transferability of treatment procedures.

The assessment procedure is a battery for children from 3 months to 6 years of age. The essential feature of assessment is its adaptability to the needs of the child and of the person administering the test. This flexibility is inherent in the battery. It allows the examiner to achieve his basic aims by systematically adapting himself, the environment, the media and the presentation of the task to the needs of the child, and by noting the environment or teaching approach which elicits the best response in the child. Organization of the material is achieved by dividing the assessment items into sections, which provides a means of reordering the information in a form readily available for planning programs.

Part of the battery is original in design; however, the complete form was achieved by utilizing and adapting aims and techniques from many other assessment procedures. (See references 43 - 53)

In designing test items an attempt was made to eliminate motor and verbal contamination from each activity because of the young age and the variety of disabilities of the children to be tested. The battery is divided into six areas of skills encompassing the major areas of child development:

1. Basic Senses and Functions
2. Perceptual-Motor
3. Fine Motor
4. Gross Motor
5. Activities of Daily Living
6. Behavioral

"Gross Motor," "Fine Motor," and "Activities of Daily Living" are listed under age levels. The age levels are obtained from the standardized norms of the tests from which the items were compiled. Although they have not been validated in their present format, which limits their accuracy, they provide a rough basis of comparison of the levels of function in different skill areas. This helps the worker to select activities at appropriate levels, since most reference material uses age levels to classify equipment, toys, and activities.

"Basic Senses and Functions" includes items to test visual, auditory and tactile sensations, reflexes, muscle strengths, coordination, range of movement, and balance.

"Perceptual-Motor" items include the development of perceptual skills through visual, auditory, tactile and kinesthetic sensations as well as body image, early concepts of numbers and objects, and orientation in space and time. There are no age levels because there is very little information available about the early (before 5 years) development of perceptual-motor skills. The perceptual-motor skills are included in such detail because of the basic role they play in the development of all skills and because the author has been unable to find any other test for pre-school children organized around perceptual skills.

"Gross Motor" items include the sequential development of the use of large body muscles from infancy to 8 years. Included are such items as rolling over, sitting, standing, walking, and running. These items are complete to 8 years of age because this one area of higher level skills can be used for comparative purposes if a child is accomplishing all other items at the 5-year level. If the child can also accomplish items in gross motor skills at an 8-year level, this might indicate higher potential than 5 years and provide the cue needed to refer him for further psychological or medical evaluation.

"Fine Motor" items include the chronological development of small muscle movement with emphasis on the arms and hands. Included are such items as reaching, grasping, and the use of toys and tools.

"Activities of Daily Living" include age level development of skills in the area of toilet and grooming, dressing, feeding, and play.

"Behavioral" items include the skills which constitute satisfactory work habits and behavior responses free from manifestations of behavior disturbances. An assessment of work habits and behavior responses, however subjective it may be, is essential to treatment planning as it provides vital information concerning ways of approaching activities with the child, as behavior can affect the child's performance in all other skill areas.

The items on the assessment have not been standardized, as the assessment is not a diagnostic tool, but rather a device for obtaining and organizing the information necessary to plan individualized treatment programs.

ASSESSMENT APPARATUS

Educational toys have been chosen to assess many items in this battery because of their large appeal to children and the variety of ways in which they can be used. The items in this test have not been standardized and therefore it is not necessary to use exactly the same books or toys as are mentioned. There are many others which will serve the same purposes.

For example, the books used have been chosen because they contain pictures of activities familiar to children. Washing, dressing, going to bed, playing with toys and eating are activities to which most children are exposed, regardless of their background or culture. Therefore, another book with the same kind of pictures would serve the purpose just as well.

Another example is the bubbles. These have been used in the assessment of eye following because they seemed to elicit the best response from the majority of children, as well as being the most easily controlled by the examiner. However, others may find a shiny object or a pom pom on a string more useful. Again, it is the skill of eye following that is essential, not the activity performed as a result of the skill.

A final example is the puzzles - again the "fruit puzzles" are chosen because most children know about fruit - and the same for the "milkman". Therefore, other puzzles of the same type and number of pieces, using objects familiar to children, would show whether the child can recognize shapes and do a single inset puzzle, or if he can do a 14-piece puzzle using objects and colours as cues to success.

The makers of the toys are listed; however, many toy manufacturers produce similar toys which would serve the same purpose.

The graded Montessori cylinders, the peg and ring set, the barrels, the puzzles and the stacking cups were all chosen because they are self-correcting; that is, if the child is aware of size or shape he will be able to see when he has made a mistake with these toys and can correct it himself.

The possibility of changing the toys used adds flexibility to the test; however, it is important to realize that using the same items to test the same things is advisable if possible. This is because it is the only real way to compare the performance of different children with similar problems. Nevertheless, we must also try not to defeat the purpose of the assessment. We are interested in learning what skills the child possesses, what toys or activities he prefers, and the manner of presentation from which he learns the most. Therefore, if the child will not respond to the toys listed here, others should be used involving the same skills.

The assessment battery includes a list of all the equipment used as well as the make of all toys and equipment. All of the educational toys have been ordered from either of the two following suppliers:

1. Moyer Division, Vilas Industries Limited,
130 Bates Road, Montreal 8, P.Q.
(with Branches in Moncton, Toronto, Winnipeg,
Saskatoon, Edmonton and Vancouver)

2. Brault & Bouthillier Ltd.,
205 est, Avenue Laurier, Montreal 14, P.Q.

The publishers of the books are listed with the equipment.

Copies of all sheet material have been included with the battery.

The "diamond" form and the stencils can be made from cardboard or wood. The stencils are placed to one side of the board, leaving room to hold the stencil with the non-dominant hand. The dimensions are as follows:

1.	Diamond form	7 3/4" long 4" wide, each side 4¼"
2.	Circle stencil	5½" in diameter, cardboard 12" x 8"
3.	Square stencil	5½" in diameter, cardboard 12" x 8"
4.	Cross stencil	5½" long 4½" across, 1" wide cardboard 12" x 8".

The pellets are made in the dimensions stated from plasticine or play dough.

One final piece of apparatus is the Cerebral Palsy Kindergarten chair. This is a small chair with arms and a tray which can be attached to the chair after the child is sitting down. This is available in Montreal from the Cerebral Palsy Association of Quebec Inc., 3015 Sherbrooke Street West, Suite 217, Montreal 6. If you cannot obtain chairs from local Cerebral Palsy Associations you may write the Montreal Cerebral Palsy Association for a picture and dimensions.

PERFORMANCE RATING SYSTEM

The purpose in developing the graduated rating system is to provide a more exact, objective and comprehensive means of assessment, recording the assessment, and planning treatment. It is hoped that the use of the rating system will reduce the implicit unknowns, provide a more delicate measure of progress than the 'yes, no' dichotomy, and thus aid communicability and transferability of treatment between disciplines and therapists.

The first steps in divising the rating system involved detailed observation of several assessments and the resulting treatment programs, and careful analysis of the activity presentations suggested in the Experimental Curriculum for Young Mentally Retarded Children.[12] The observations and analysis revealed the same patterns used in three areas:

1. The manipulation of activities, environment or relationship to establish levels of success in the assessment.

2. The steps in teaching activities used in treatment programs.

3. The suggested steps for teaching many curriculum activities to retarded children.[12] (The primary reference for this work.)

The pattern, having been discovered and defined, was applied generally to all activities of the assessment battery. The application indicated the need for subheadings within each category which were considered variations of the category at the same performance level. The rating system was then reapplied to the assessment activities. At this point the results seemed successful. This graduated system of rating activities appeared to incorporate a more comprehensive method of grading performance.

The six categories are arranged in order of their mastery, but do not indicate the comparative degree of difficulty between the steps. It was found unnecessary for a child to pass through each stage in order to achieve the next one. The six points are lettered from A to F, within which sub-categories are numbered. The letter M was chosen to indicate maximum performance determined by disability. Below is the six point sequence defined according to categories and sub-categories. Examples are provided for further clarity.

A. No - No interest or adequate motivation, including undefined sporadic interest and/or physical inability.

B. Attention - Any definable indication or attention to any part of activity, but no active participation due to insufficient attention or physical incapacity.

   1. Intermittant - occasional fleeting interest in parts of the activity.

   2. Focused - maintained interest in the whole activity.

C. Physical Assistance - Child's active participation in the activity when environment, presentation, and/or activity is modified to any degree.

   1. Physical contact with the child - touching the child in any way for any purpose; for example, stabilization, giving a feeling of movement.

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2. Physical contact with media - touching media in any way for any purpose; for example, holding or guiding the equipment as the child attempts the task, or demonstration of the use of the media as a further means of directing the child.

3. Modification of environment - any manipulation of the environment which changes the child's ability to perform skills; for example, structuring by removing extraneous stimuli.

4. Modification of relationship - any change in manner relating to the child which changes the child's ability to perform skills; for example, eliminating all frustration for the child, being quiet, calm and organized in approach, tolerating inappropriate behavior for a specific reason.

5. Modification of media - any adaptation of media which changes ability to perform skill, for example, larger beads, stiffer string, straps to hold feet on bicycle pedals.

D. Verbal Direction - Performs activity alone, but requires additional verbal instructions and/or reinforcement.

1. Simple instructions - short frequent step-by-step directions of one or two words.

2. Complex instructions - repetition of original directions including several steps of the task.

3. Positive reinforcement - short and frequent praise (one or two words) at each appropriate step of the task.

4. Negative reinforcement - short and frequent comments of one or two words indicating incorrectness of approach or performance at appropriate steps of the task.

E. Independent in Structured Situations - Performs activity with no assistance within familiar surroundings or with familiar media.

F. Independent - Ability to perform the same tasks in different forms and contexts demanding equal skill.

1. Environment - able to perform task regardless of milieu.

2. Media - able to perform task using unfamiliar media.

(For further examples refer to appendix II)

METHOD OF ASSESSMENT

The method of presenting this assessment is very different from most assessments because of the need to discover, for teaching purposes, the skills of the child at whatever level they may exist. This requires the examiner to adjust himself, the environment, and the activities, to the child rather than the child adjusting to each of the variables, as is the case in most standardized tests. Therefore, if a child cannot do something when he is directed in a certain way and in a certain setting, both the setting and/or the method of directing the child may be changed in order to arrive at his skill level.

The Assessment Battery is usually administered in one or two hours. However, administration may necessarily extend over a longer period of time for children with behavior problems. (short-term evaluation in this case would be inadequate or impossible.)

Whenever the assessment is done in hospital or at home, the equipment and environment are prepared before starting. The ideal setting is a quiet room with a small table and chair and enough room to do the gross motor activities. Materials to be used for the assessment should be in the immediate area and stored in a carrying case or cupboard.

When visiting the home, it will be necessary to prepare the mother in advance. She is told the purpose of the visit and what may be required in order to achieve that purpose. This may be done either by telephone or during an initial visit.

After preparing the room, the child and mother (or parents) are taken into the room. One activity has been placed on the table in front of the chair. If the examiner does not know the child well, the child is not approached immediately. Rather, the first few minutes are spent in letting the child become familiar with the examiner and the room while various procedures are discussed with the mother (or parents). The parents should be told what is expected of them. By this time the child should be familiar with the examiner and the room. The child is then asked to sit at the table and is presented with the test items in the same order as outlined in the battery.

This order of activities has been found to be most suitable for the majority of children tested. It commences with sedentary activities using familiar educational toys, and proceeds by alternating the sitting and standing positions. This changing of positions seems to help the children attend for a longer period of time.

The items included in Basic Senses and Functions are not tested if they have been included in any previous report on the child (by another discipline). If not included in previous reports they are tested as the instructions indicate. Or you may refer the child to a more appropriate person for testing in the required area if you are not competent or trained to do it. (e.g. vision - refer to opthomologist, reflexes - refer to neurologist or physical or occupational therapist, language - refer to special therapist). The items in this section are not rated, but are recorded as present or absent, normal or abnormal.

The mother is asked to report on Activities of Daily Living. If a discrepency appears in performance between what the mother reports and what the examiner observes, it may be necessary to test the Daily Living Activities.

The section on Behavioral Skills is rated after observing the child's performance throughout the assessment. The ratings are made according to the child's level of functioning throughout the assessment, not in accord with his chronological age. Thus, a child of 6 whose range of functioning was between 18 months and 3 years would be considered in view of whether his behavior would be appropriate for a child within his functioning age range, and not whether his behavior was appropriate to a 6 year old.

It may not be necessary to assess the gross motor skills if the child has been evaluated in Physical Therapy. However, if the child has perceptual motor difficulties, it will be necessary to observe how gross motor activities are performed by the child.

In presenting gross and fine motor items, the child's estimated mental age should represent the starting point. If a mental age is not available, the referring physician could provide an approximate age. If this is not possible the mother should first be asked what the child is accomplishing in daily living activities, and the corresponding age level may be used as the starting point. The examiner then works down in age levels until the child is accomplishing every item within an age group without assistance of any kind. The examiner then works up in age levels until the child is no longer successful in any item and is not interested in any items despite modifications. This eliminates the necessity of presenting every activity to every child, and also limits the failure experiences.

Items in the perceptual-motor development section are not listed by ages, therefore, test all items as instructions indicate and do not administer tests to children under any age levels which may be specified.

Each item in each section is numbered. Refer to the number indicating the respective activity when recording the child's performance on the score sheets (enclosed at the end of the assessment). For ease in scoring and recording, the most suitable way of administering the assessment is in the prepared order.

All stenciled sheets required for the assessment are included with the list of suggested equipment. The equipment is suggested, but as mentioned earlier, the examiner may adapt the equipment to his own or the child's needs.

The evaluation is initiated by presenting the activities as each section's instructions indicate. If the child does not succeed with this method of presentation, the examiner should adapt the situation, using the rating scale as a guide line, until he has the maximum performance possible in the activity or the most appropriate behavior response possible, from the child.

The following are examples of some specific alternatives in both the method of presentation and modifications in the environment which have proven very useful in assessing the exact capabilities of small children. However, it is important to realize that these are not all the possible combinations and permutations, and the examiner should not hesitate to try something of his own if the need arises.

The use of these variations depends very much on the skill of the examiner. He must be sensitive to the needs of the child so that any necessary changes in approach can be fitted smoothly into the assessment procedure.

1. If the child is not willing to perform because of fear, anxiety, shyness, etc., it is often advisable to have one of the parents present the activities to the child, but with direction from the examiner. If the child performed activities in this manner, he would be rated "E" as he is unable to transfer skills to different environments. He can perform for a familiar person, but not for a stranger.

2. The length of time that young children can tolerate structured activities varies considerably. When a child is no longer capable of responding to activities at the same level as his earlier performance, a change in the presentation is indicated. Perhaps testing should be stopped or the child may require a break; in a young child (3 years and under) this is normal behavior and the rating would be "D", "E" or "F"; for an older child it would be "C3", a modification of the environment.

3. With uncooperative, very hyperactive children, the most satisfactory solution to date has been to see them over a long period of time for very short sessions. They should be presented with the task and the toys in a free environment. The child should choose any toy or activity that he wants and as long as he plays constructively he can remain with the toys. All activities would be rated "C3" as a modification of the environment was necessary for performance.

4. When presenting the activities to the children, there is a progression in the manner in which the instructions are given. The instructions are initially given verbally to the child, then if the child does not understand, the examiner explains and demonstrates the task. If the child still does not understand, his hands or body should be guided through the required movement. For example, the child is instructed to draw a line like the vertical line; the examiner then draws a vertical line and again tells the child to do likewise. If the child still has difficulty, the crayon is placed in his hand and is guided to make two or three vertical lines. The rating for this would be "E" if the child accomplished the task on the first verbal direction, "D " if he had to have the direction repeated, and "C" if the examiner had to demonstrate or guide his hand.

5. Changes in the structure of the room are made for hyperactive, distractable children with very short attention span. This would be rated "C3"; a modification of the environment makes maximum performance possible.

   a) The first change in structure is to place the hyperactive child in the Cerebral Palsy Chair (described on page 10). This seems to provide some of the extra support and structure required.

   b) If the child still cannot settle down, the room should, if possible, be arranged to reduce stimuli. Equipment should be removed or placed so that it is out of sight. Sometimes it is also helpful to do all the seated activities before the gross motor activities.

   c) If the child is very disorganized, he should be helped to organize himself. The examiner should not give the child all the pieces of a toy, but rather, have him hand over each piece

> (or take it from him) as he dismantles it. The child should then be presented with the pieces one at a time to put back in place. If the examiner wants the child to make a choice, he should be given two pieces. This also includes a modification of relationship and media, and so would be rated "C2", "C3" and "C4".

There are many children and many variations in approach with which the examiner's ingenuity will be taxed. Remember always to try and make the task simple in presentation and environment control by breaking the task and the environment into their component parts and then proceeding.

Appendix II includes further examples of the application of the rating scale to activities and behaviors.

BASIC SKILLS ASSESSMENT

(For Children Functioning From Three Months To Six Years Of Age)

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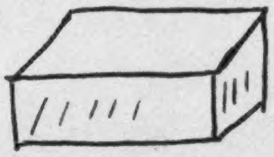
EQUIPMENT

1. Peg and Rings - 6 graded rings with graduated peg - Play School Toys
2. Single inset Fruit Puzzle - Sifto Toys
3. Milkman Puzzle - 14 pieces - Sifto Toys
4. Co-ordination Board - Basic Form Board - Sifto Toys
5. Barrels - Billy and his Seven Barrels - Kiddicraft Toys
6. Colour Peg Board - Coloured button-type pegs
7. Fine Peg Board - ¼" pegs.
8. Doll - large with clothes - boy or girl
9. Red Plasticene Pellets - 1/16", 1/8", ¼", ½"
10. Blocks - ½" in diameter - at least 9, with center holes
11. Book - "All by Himself or Herself" - by: May Clark - A. Plakie, Product, Youngstown, Ohio

    "Zippy the Chimp" - Lee Ecuymer - Rand McNally & Co., Chicago, Ill.
12. Crayons - large diameter and small
13. Scissors - blunt end
14. Paper - 4" x 4", 8" x 6"
15. Diamond Form - cardboard or wooden 7 3/4" long, 4" wide, each side 4½"
16. Montessori Graded Cylinders - graded height - graded width
17. Bubbles
18. Beads - ¼" in diameter (square)
19. Building Beakers - Hilary Page (England)
20. Ayres Skirtboard

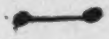


Examiner sits here in back

Child sits in front, puts hands under skirt

21. Bag of Familiar Objects - 2 toothbrushes, 2 spoons, 2 combs
22. Sound Blocks - Montessori
23. Stencil of circle 5½" diameter, square 5½" diameter and cross 5½" long, 4½" across, 1" wide - heavy cardboard 12" x 8"
24. 3 pages with dots on them

1



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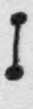

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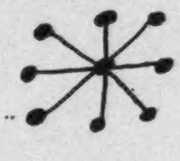
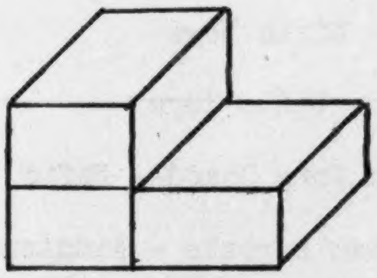


Equipment (continued)

25. Picture of "Happy" and "Sad" face

26. Large Ball

27. Pictures of Blocks -



28. Child's Sweater

29. Pictures of Winter, Summer, Spring and Fall

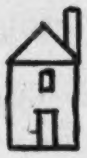
30. Pictures of Day and Night

31. Paper with forms and letters to copy

32. Busy Box - Kohner Toys

33. Cerebral Palsy Kindergarten chair - small chair with arms and a tray which can be attached to chair.

34. Picture of Basic Shape House



35. Puzzle of boy or girl with separate body parts

SECTION I

BASIC SENSES AND FUNCTIONS

These items are not tested if they have been included on any previous report on the child. These items are not graded. Record all results on front page of report, where indicated.

ITEM & EQUIPMENT USED	INSTRUCTION
1. Visual Acuity. Plasticine pellets. 1/16", 1/8", ¼"	1. Instruct child to pick up the small ball. Present smallest pellet to the child first. Present others as necessary.
2. Hearing. Montessori Sound Blocks.	2. Rattle sound blocks out of sight of child. Watch child to see if he reacts to noise. Start with soft block. Work to loudest block if necessary.
3. Tactile. a) Deep Touch. Ayres Skirt Board. b) Light Touch. Ayres Skirt Board. Cotton Batten. c) Extinction Phenomena. d) Reaction to Tactile Stimuli.	3. a & b - Child's hands under skirt board. a) Push into palm of child's hand with finger. Tell him to point to where you touched him or observe child's reaction to your touching him. b) Brush palm of child's hand with cotton. Tell him to point to where you touched him or observe if child reacted to touch. c) Touch child in following places. Ask him to show you both places you touched him. (i) face and hand same side. (ii) arm & leg, opposite side. (iii) face & hand opposite sides. Not suitable for children under 3 years. d) Observe child's reaction to tactile stimuli of items 3a, b & c. Does he 1. Become hyperactive. 2. Become distractible. 3. Avoid stimulation. 4. Tolerate stimulation.
4. Muscle Tone.	4. Test of child's muscle tone appears normal, hypertonic or hypotonic by passively moving upper and lower limb.
5. Muscle Strength. Gross & fine motor activities.	5. Observe if child's muscle strength appears normal or weak.
6. Range of Motion.	6. Test whether range of motion in major joints of body is normal or abnormal. If abnormal, measurement of involved joints with goniometer is indicated. These results would be added on an additional sheet. Measurement to be done by qualified therapist or M.D.
7. Neurological Activity.	7. Only tested if Muscle Tone or Muscle Strength are noted to be abnormal. Testing to be done by qualified therapist or M.D. If not tested fill in "not Tested" on score sheet.

a) Spinal Reflex Activity. (1) Extensor Thrust. (2) Flexor Withdrawal. (3) Crossed Extension. b) Tonic Reflex Activity. (1) Asymetrical tonic neck right, left. (2) Symetrical tonic neck. (3) Tonic labyrinthe reflex. - supine(increased extensor tone). - prone(increased flexor tone). c) Automatic Movement Reactions. (1) Moro reflex. (2) Landau reflex. (3) Protective extension of arms. d) Righting Reactions. (1) Neck righting. (2) Labyrinthe righting on head. (3) Body righting on body. (4) Amphibian. (5) Optical righting. e) Equilibrium Reactions. (1) In prone. (2) In supine. (3) 4 pt. kneeling. (4) Sitting. (5) Kneel standing. (6) Squatting. (7) Standing-hopping. -dorsiflexion. -see-saw.	7. Test reflexes using Reflex Testing Methods for Evaluating C.N.S. Development, by Fiorentino. Charles C. Thomas, 1963.
f) Oral Reflexology. (1) Rooting reflex. (2) Mouth opening. (3) Lip reflex. (4) Biting reflex. (5) Sucking reflex. (6) Chewing reflex. g) Negative Symptoms. (1) Swallowing reflex. (2) Pharyngeal reflex. (3) Palatal reflex.	7. f & g - Test as delineated in Principles of a Reflex Therapy approach to Cerebral Palsy. Edward D. Mypak, Bureau of Publication, Teachers' College, Columbia University, 1963, and Dysarthria & Oropharyngeal Reflexology; a review. J. Speech & Hearing. Dec. 28, 1963, 252-260.

8. Balance Gross Motor Activities	8. Observe if the child's balance is good or poor within his functioning level.
9. Crossing Midline	9. Ask child to draw a line from one side to the other on chalk board, not moving feet. Observe if child avoids crossing midline by changing hands or moving feet or rotating body.
10. Dominance: Hand and Foot a) Fine Motor Activities-hand Gross Motor Activities-foot b) Agreement of hand-eye-foot dominance. Eye tube of paper.	10. (a) Observe child's preferred hand in fine motor activities. Observe child's preferred foot in gross motor activities. Dominance is established if he has a consistent preference. (b) Test (b) if 10 (a) is mixed. Have child look through rolled piece of paper.
11. Fine Motor Control Fine Motor Activities	11. Does child have good or poor control of his hands in fine motor activities which are within his functioning level?
12. Gross Motor Control Gross Motor Activities	12. Does child have good or poor control of his body in gross motor activities which are within his functioning level?

PLAY

Observations Made During Assessment and Questions to Mother

AGE LEVEL	DESCRIPTION OF PLAY
1.6 years	Very rapid shifts of attention. Gross motor activity - gets into everything, pulls toys, hugs dolls or teddy bears. Imitates familiar household activities. Solitary onlooker play.
2.0 years	Does not ask for help. Plays with domestic mimicry. Less rapid shifts of attention. Manipulating - feel, pat, pound. Interest in dolls, teddy bears, beads, blocks and wagon. Parallel play.
3.0 years	Names own spontaneous drawing. Dramatization enters play. Interest in combining play things. Likes to play with others and can wait his turn. Puts away toys with some supervision. Initiates own play activities.

PLAY CONT'D

AGE LEVEL	DESCRIPTION OF PLAY
4 years	Differentiates directions. Likes to dress up. Names drawings. Constructive use of material. Questioning at play. Dramatizes experiences. Increase in activity. Stays with age appropriate activities until completed.
5 years	Conversation geared to reality. Likes to work on specific project and wants to finish what he started. Fond of cutting out and pasting. Plays in groups. Interest in going on excursions, and competitive games.

LANGUAGE

This is marked by observing the child's language and by questioning the mother

AGE LEVEL	ACTIVITY
1 year	Some comprehension Use of vocalization projectively (goal directed)
18 months	Projective vocalization with gesture Uses some words meaningfully
2 years	Uses short phrases (non automatic) Names 3-5 pictures
3 years	Conservation loop, conversation ability Sentences and questions, gives full name and sex
4 years	Vocabulary increasing, conversation established
5 years	Uses complete structure and form-syntactically correct. Articulation improved but not perfect

DEPENDENCE-INDEPENDENCE

0-1 years	Reaches for familiar persons and demands personal attention
1-2 years	Plays with other children
2-3 years	Avoids common dangers
3-4 years	Performs for others
4-5 years	Goes about neighbourhood unattended
5-6 years	Is trusted with money Goes to school alone

PERCEPTUAL MOTOR SKILLS

SECTION II

#-AREA TESTED-EQUIPMENT USED	
Visual Field - Bubbles or Ball on String	
Near 1. Eye Following Vertical Line. 2. Eye Following Horizontal Line. 3. Eye Following Diagonal Line. 4. Eye Following Circular Pattern. Far 5. Eye Following Vertical Line. 6. Eye Following Horizontal Line. 7. Eye Following Diagonal Line. 8. Eye Following Circular Pattern.	1. - 8. Blow bubbles, catch one on a stick. For 1 - 4 move bubble on stick one foot from face in vertical, horizontal, diagonal or circular pattern. For 5 - 8 move bubbles in required pattern 3 feet from the face. Child is instructed to watch only with his eyes and not to move his head.
9. Convergence.	9. Instruct child to watch bubble as you move it towards the bridge of his nose. Child is again instructed not to move head.
Visual Discrimination of Shape. Co-ordination Board & Single Inset - Fruit Puzzle.	
10. Ability to match geometric shapes. 11. Ability to match object shapes.	10., 11. Give child puzzle. Instruct to take pieces out and put back in.
12. - 17. Ability to reproduce basic shapes, paper, pencil-stenciled sheet with basic shapes. See attached sheet.	12. - 17. Have child copy drawing of ╱ — ○ + □ △ Grade his performance by his perception of basic shapes.
Visual Discrimination of Size.	18. - 21. Present toy to child. Tell him to take it apart and put it together.
18. Aware of Size Differences. Stacking Rings.	18. Note if child is aware of ring being in wrong place or, if he puts it together incorrectly.
19. Aware of Bigger & Smaller Barrels.	19. Note if child tries to fit bigger barrel into smaller barrel.
20. Size Sequence. Stacking Cups.	20. Note if child tries to fit large cup into small one. Note if child takes cups in order of size.
21. Size Sequence Depth. Montessori Board Depth	21. Note if child places cylinders into correct holes in sequence.

22. Size Sequence Depth & Width. Montessori Board Depth & Width.	22. Note if child places cylinders into correct holes in sequence. When toys are dismantled, ask him to show you the biggest and smallest piece of each toy. If he is successful ask him to show you the middle or medium one.
Visual Discrimination of Colour.	
23. Matching Colours. Co-ordination board.	23. Instruct child to match colours of the shapes on the coordination board.
24. Sorting Colours. Colour peg board.	24. Pick out red peg from box of pegs, ask child to find another one like this. Repeat with blue, green, yellow and orange. Then instruct child to place pegs in board in rows of colours.
25. Naming Colours. Colour peg board.	25. Ask child name of colour you have selected, if he was successful in 23.
Eye-Hand Coordination.	
26. Vertical-Sheet with dot. 27. Horizontal-Sheet with dots. 28. Diagonal-Sheet with star.	26. - 28. Instruct child to join dots on paper making lines or star. If he is unable to do 26 or 27, do not ask him to do 28.
Non Verbal Integration.	
29. Simple-Duck Puzzle 6 pieces. 30. Complex-Milkman Puzzle 14 pieces.	29. - 30. Give duck puzzle to child. Observe how he does it. If he does it easily, give him milkman puzzle.
Stereognosis. Tactile. Ayres Board. Bag of familiar objects. 31. Comb 32. Spoon 33. Toothbrush.	31. - 33. Place one set of objects on top of Ayres Board. Have child name or match or point to objects on command. If he cannot do this do not administer test. Have child place hands under skirt board. Hand him comb, spoon & toothbrush under board into dominant hand. Tell him to point to or tell you what he has in his hand.
Auditory.	
34. Ability to match sounds. Montessori Sound Blocks.	34. Rattle loudest and softest sound block. See if the child can match the sound. Give him two blocks from the other box, to choose from.
35. Ability to grade sounds. Montessori Sound Blocks.	35. Ask child to arrange blocks in order - loudest to softest.
36. Auditory Foreground. Background.	36. Note child's ability to function with background noises.
37. Auditory Foreground. Background.	37. Ask child to reproduce simple tune (do-re-me).

Body Concept, Body Image, Body Awareness	
38. Intellectual knowledge of names of body parts (doll)	38. Ask child to name parts of body you point to on doll or himself.
39. Spacial relationships of body parts to each other. Paper and pencil	39. Ask the child to draw a picture.
40. Boy or girl puzzle.	40. If child cannot draw ask him to assemble puzzle of boy or girl.
41. Body in Space Obstacle course of chair and table.	41. Ask child to follow you up onto chair, down to floor, under table and around chair and table.
42. Relationship of body Parts to Objects in Space. Child's pullover or doll with clothes.	42. Ask child to put on sweater or ask him to put sweater on doll.
43. Awareness of Emotional Expressions and Effect Picture of crying and of laughing child.	43. Ask child what the girl is doing and why, what the boy is doing and why.
44. Kinesthetic body Awareness - Gross	44. Have child shut his eyes. Move his arms out to the side and down. Ask him to repeat the movement. [illegible]
45. Kinesthetic body Awareness - Fine	45. Have child shut his eyes. Bend and straighten his index finger. Ask him to repeat the movement. Not suitable for children under 3.
Position In Space - Language	Child is standing, ask him to-
46. Up	46. Put his hands up.
47. Down	47. Put his hands down.
48. In front.	48. Put his hands in front of himself.
49. Behind	49. Put his hands behind himself.
	Child is sitting, ask him to-
50. Over	50. Put his hands over his head
51. Under.	51. Put his hands under his chair.
52. Out to the Side.	52. Put his hands out to the side.
53. Right	53. Show me your right hand.
54. Left.	54. Show me your left hand.

Spatial Relationships.	
55. Red, blue, yellow blocks.	55. Arrange blocks in front of child red on blue. Yellow on right side of blue. Hand child picture of blocks in front of him. Children 3 and up.
56. Picture of house. See Attached Sheets.	56. Ask child to draw a house the same as the picture of the house. Children 4 and up.
Fine Motor Control.	
57. Busy Box.	57. Instruct child to press the button on the cat's nose with each finger of both hands. Demonstrate first.
58. Stencils of circle.	58 - 60 Give child stencil. Ask him to make shape pushing against the cutout edge of stencil. Make a circle, square or cross. Do not continue if unsuccessful with previous stencil.
59. Stencil of square.	
60. Stencil of cross.	
61. Diamond form	61. Give child a diamond form. Instruct him to trace around it. Do not test if he could not do the stencils.
Motor Planning.	
62. Ball passing.	62. Sit next to child, demonstrate passing ball from right to left hand, under knee. Instruct child to copy you.
63. Ball rolling.	63. Instruct child to hit simple target arranged 4' away. Demonstrate.
Numbers & Quantity.	
64. One versus many. Peg board.	64. Give child box with 10 pegs in it. Ask him to put one peg into the board.
65. One versus two. Peg board.	65. Give child box with 10 pegs in it. Ask him to put two pegs into the board.
66. Counting to 10.	66. Ask child to count to 10.
67. Reciting numbers to 30.	67. Ask child to count as high as he can.
68. Concept of 6.	68. Ask child to put 6 pegs in the board.
Concept of Time.	
69. Day and Night. Card pictures of Day and Night.	69. Show child cards of day and night. Ask him to point to card that is night time. Ask him to point to card that is day time.
70. Seasons. Cards with pictures of 4 seasons.	70. Not suitable for children under four. Ask child to point to picture of winter, summer, spring & fall.

Object Recognition	
71. Names familiar objects - Zippy the Chimp	71. Ask child to name,point to or match pictures of objects in the book. Toys, clothes, eating, utensils, T.V.
72. Recognizes object described in terms of use. Zippy the Chimp	72. Point to glass, toothbrush, and shoes. Describing their use ask child to identify them.
73. Story comprehension. Zippy the Chimp	73. Tell story of Zippy the Chimp. Question child about it to see if he understood. 3 years and up.

SECTION 3: Fine Motor Skills.

All items are tested by watching the child do the activities specified. Activities in which the child has been successful in any previous testing are marked at appropriate age levels and not repeated unless their validity is questioned.

FINE MOTOR SKILLS

AGE LEVEL	#	ACTIVITY
3-Months	1.	Holds toy activity (1½" peg)
	2.	Arms activate on sight of toy
	3.	Symetrical head and arm posture (supine)
6-Months	4.	Reaches purposefully
	5.	Transfers object
	6.	Drops object
9-Months	7.	Extended reach and grasp
	8.	Opposed grasp
1-Year	9.	Voluntary release
	10.	Brings one block over another
	11.	Deft prehension
	12.	Rolls ball imitatively
	13.	Puts cube in container
18-Months	14.	Builds 3-block tower
	15.	Places peg in hole (1" peg)
	16.	Turns 2-3 pages at a time
	17.	Picks up crayon and scribbles
2-Years	18.	Builds 6-block tower
	19.	Builds 3-block train, or imitation
	20.	Turns 1 page at a time
	21.	Throws ball inaccurately
	22.	Strings beads
	23.	Copies vertical stroke
	24.	Unscrews barrels
	25.	Snips with scissors (1 hand)
	26.	Holds crayon with fingers and scribbles with circular and angular strokes.
	27.	Imitates folding paper
3-Years	28.	Builds 9-block tower
	29.	Builds 3-block bridge
	30.	Imitates horizontal stroke
	31.	Imitates circular stroke
	32.	Picks up small objects
	33.	Handles crayons in adult manner.
	34.	Scribbles in response to "Draw-a-Man"
	35.	Cuts with scissors (1 hand)
	36.	Traces a diamond
4-Years	37.	Copy a cross
	38.	Pick up a block with thumb and median finger
	39.	Folds paper 3 times with creases
	40.	Draws without scribbling and names drawing
	41.	"Draw-a-Man" takes on form
	42.	Copy a circle
5-Years	43.	Copy a square
	44.	Copy a triangle
	45.	Print a few letters
	46.	Draw a recognizable man, body, extremities, face
	47.	Fold paper square 2 times on the diagonal, after demonstration
	48.	Copy bead pattern by shapes
	49.	Use scissors
	50.	Colour within 1" area

See Attached Sheet.

SECTION 4: Gross Motor Skills.

All items are tested by watching the child do the activity mentioned.

AGE LEVEL	#	ITEMS
3-Months	1)	Head compensates when held in ventral suspension
Prone	2)	Lifts head when resting on forearm
	3)	On verge of rolling to supine
	4)	Head rotates and extends
Supine	5)	Symmetrical head and arm posture
	6)	Rolls part way to side
Supported Sitting	7)	Slight head lag when pulled to sitting
	8)	Head steady, lumbar curve
Supported Standing	9)	Bears small fraction of weight on legs briefly
6-Months	10)	Legs and arms extended, weight on hands
Prone	11)	Lifts arm with stimulation
	12)	Rolls to supine
	13)	Brings one knee forward beside trunk - doesn't lift abdomen
	14)	Circular pivoting
Supine	15)	Lifts head
	16)	Rolls to prone
Supported Sitting	17)	Lifts head and assists in pull to sitting
	18)	Holds head erect when leaning forward
6-Months Cont'd	19)	Sits momentarily, leaning on hands
Supported Standing	20)	Bears large fractio of weight on legs and bounces
9-Months	21)	Assumes hand-knee creeping position
Prone	22)	Creeps on all fours or hitches on buttocks
Sitting	23)	Sits indefinitely unsupported
	24)	Assumes sitting position without assistance
Standing	25)	Pulls to standing at rail or furnitur
	26)	Lowers to floor at rail or furniture
12-Months	27)	Assumes and maintai kneeling balance
	28)	Pivots in sitting
	29)	Cruises at rail
	30)	Walks with one hand held
15-Months	31)	Walks alone several steps
	32)	Falls by sitting
	33)	Creeps or hitches upstairs
	34)	Rises to standing independently and walks

GROSS MOTOR DEVELOPMENT (Cont'd)

AGE LEVEL	#	ITEMS
18-Months	35)	Walks alone, seldom falls
	36)	Upstairs one hand held
	37)	Seats self in small chair
21-Months	38)	Upstairs holding one rail step tap pattern.
	39)	Downstairs one hand held step tap
	40)	Squats in play
2-years	41)	Runs fairly well, no fall
	42)	Upstairs and downstairs alone, step tap.
	43)	Kicks on command in standing.
	44)	Throws ball, takes one or two steps before & after
	45)	Walks sideways
	46)	Walks backwards
	47)	Turns freely
3-years	48)	Walks on tiptoe
	49)	Runs on toes
	50)	Rides tricycle
	51)	Jumps on both feet
	52)	Upstairs alternating feet
	53)	Momentary one foot stand
4-years	54)	Downstairs alternating feet last few steps
	55)	One foot standing 4-8 sec.
	56)	Skip on one foot
	57)	Throw ball by shifting weight before throw poor height control.
5-years	58)	Skips with alternating feet
	59)	One foot standing balance, 8 sec. plus
	60)	Walking board, full length
	61)	Down steps, reciprocal
	62)	Hops
	63)	Walks on heels
6-years	64)	Jumps from 12" high lands on toes.
	65)	Stands on alternating feet, eyes closed.
	66)	Advanced throwing.
	67)	Stands on one foot, no support, eyes closed 10 sec.
	68)	Uses skates, sled and wagon
7-years	69)	Crouch on toes, knees bent 45°, arms out at sides, shoulder high, eyes closed, 10 sec.
8-years	70)	Sit at table, hands in fist except first finger. Tap right foot and right finger on floor and table at same time, then left side, maintain rhythm for 20 sec.

SECTION 5: ACTIVITIES OF DAILY LIVING

All these items are checked by questioning the mother. They are tested more thoroughly if the reporting indicates that the child is performing considerably above or below the levels he achieved in the rest of the testing.

DRESSING

AGE LEVEL	#	ITEM
18-months	1.	Removes socks.
2-years	2.	Removes shoes (unlaced)
	3.	Removes pants (assist over hips)
	4.	Helps in dressing, pushes, pulls, finds armholes.
3-years	5.	Unbuttons medium shirt buttons.
	6.	Unlaces shoes.
	7.	Removes clothing completely if not fastened.
	8.	Puts on underpants.
	9.	Puts on shoes.

AGE LEVEL	#	ITEM
4-years	10.	Puts on socks.
	11.	Buttons large buttons on shirt.
	12.	Laces shoes.
	13.	Dresses and undresses with little assistance.
5-years	14.	Buttons medium buttons
	15.	Dresses self, except small fastenings.
	16.	Is careful about how he looks.
6-years	17.	Ties bows on shoes.
	18.	Buttons small buttons.

FEEDING

AGE LEVEL	#	ITEM
9-months	19.	Finger feeding.
1-year	20.	Grasps spoon.
	21.	Chews food.
18-months	22.	Fills spoon with food.
	23.	Lifts cup and drinks well.
2-years	24.	Drinks from cup or glass.
	25.	Feeds self with spoon.
	26.	Needs some help likes to dawdle and play.

AGE LEVEL	#	ITEM
3-years	27.	Feeds self independently.
	28.	Pours well from pitcher.
	29.	Interested in table setting
	30.	Frequently gets up.
4-years	31.	Feeds self with fork.
	32.	Drinks through a straw.
	33.	Talks and eats and rarely gets up.
5-years	34.	Eats rapidly.
	35.	Very social and talkative.
6-years	36.	Spreads with a knife.

SECTION 5 CONT'D ACTIVITIES OF DAILY LIVING

TOILET & GROOMING

AGE LEVEL	#	ITEM	AGE LEVEL	#	ITEM
2-years	37.	Washes and dried hands partially	4-years	41.	Brushes teeth.
	38.	Asks for toileting		42.	Washes and dries face.
				43.	Responsible for toilet.
3-years	39.	Washes & dries hands	5-years	44.	Doesn't mention toileting.
	40.	Responds to toilet routine	6-years	45.	Combs or brushes hair.
				46.	Blows and cleans nose.

PLAY

AGE LEVEL	#	ITEM	INSTRUCTIONS
3-18 months	47.	Solitary play.	47. - 50. Observe child in free play period for last 15 minutes of the assessment. Question mother about play habits at home.
18 months-3 years	48.	Parallel play.	
3-years up	49.	Group play.	
	50.	Play affect.	

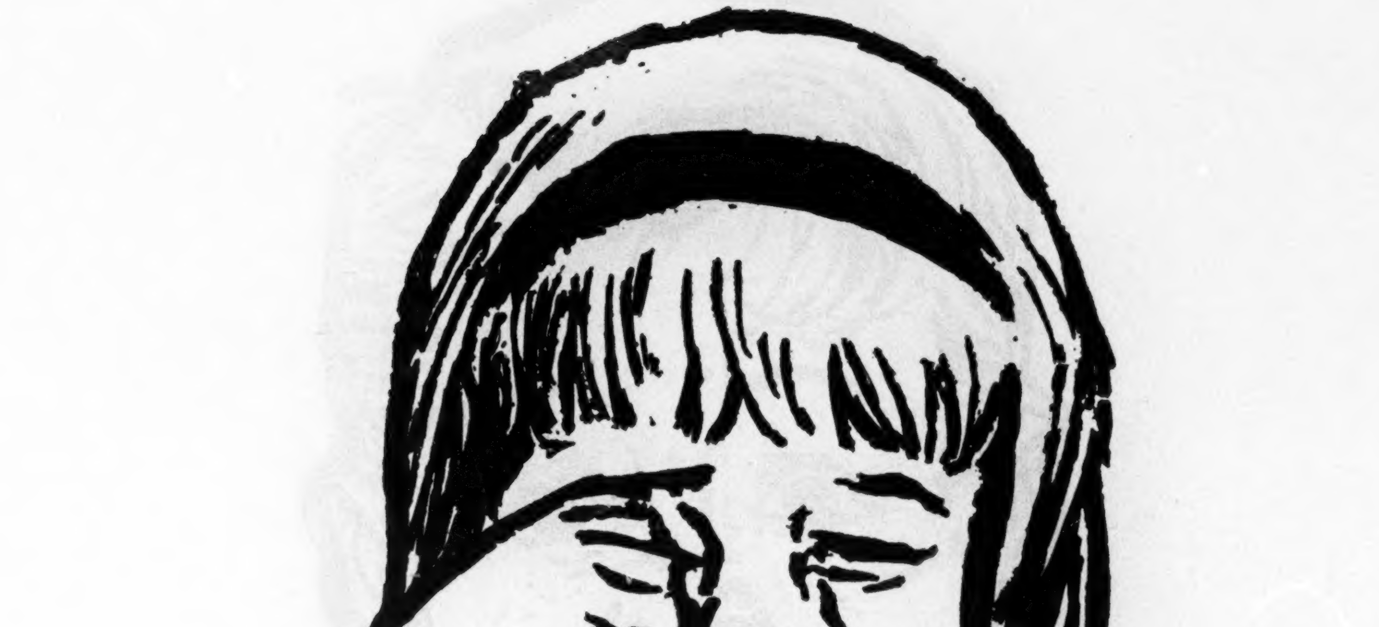
BEHAVIOR & WORK HABITS

TYPE OF BEHAVIOR	INSTRUCTIONS
1. Reaction to tasks.	1. Observe child's motivation and response to activities presented to him which are within his capabilities.
2. Frustration tolerance.	2. Observe tolerance of activities which are difficult for him and of limitations on behavior.
3. Reaction to frustration.	3. Observe child's reaction to frustration in activities and limits set for him during assessment. Does he react? Does he accept help? Does he ask for help? Does he require that you anticipate his needs? Does he withdraw? Does he become aggressive?
4. Ability to separate from parents.	4. Observe the child's ability to separate from the parent and work with the tester. Are there any separation rituals? How does the parent react to someone else relating to and working with the child?
5. Ability to organize and work independently.	5. Observe child's ability to organize his approach to activities within his range of abilities. Is he dependent, does he become anxious, provocative or destructive when not given attention?
6. Pattern of activity level.	6. Is the child appropriately active during testing or does he tend to hyper or hypoactivity or does he fluctuate between the two?
7. Appropriate reaction to change.	7. Can the child change activities easily or does he have difficulties transferring from one activity to another, does he become anxious, rigid, perseverate, resist or passively accept changes?
8. Freedom from habit symptoms.	8. Observe if child exhibits bizarre rocking head movements, thumb sucking, twirling of objects, stereotype plays, tics etc.
9. Ability to share attention in group.	9. Ask parent if child can share attention with other children, and under what conditions he does so and/ or observe child in group situation.
10. Ability to follow group routine.	10. Ask parent if child can cooperate in following family's daily routine and under what conditions he does so and/or observe child in group situation.
11. Reaction to adults.	11. Observe child's reaction to parents and tester. Does he respond appropriately or does he over or under respond?

TYPE OF BEHAVIOR	INSTRUCTIONS
12. Reaction to peers.	12. Ask parent about child's interaction with peers and/or observe child in group situation. Is his response appropriate or does he over or under react?
13. Ability to mobilize appropriate affect.	13. Observe child's reactions and affective expression to various events throughout assessment such as expressions of anger or grief or fear. How does he mobilize and channel affect?

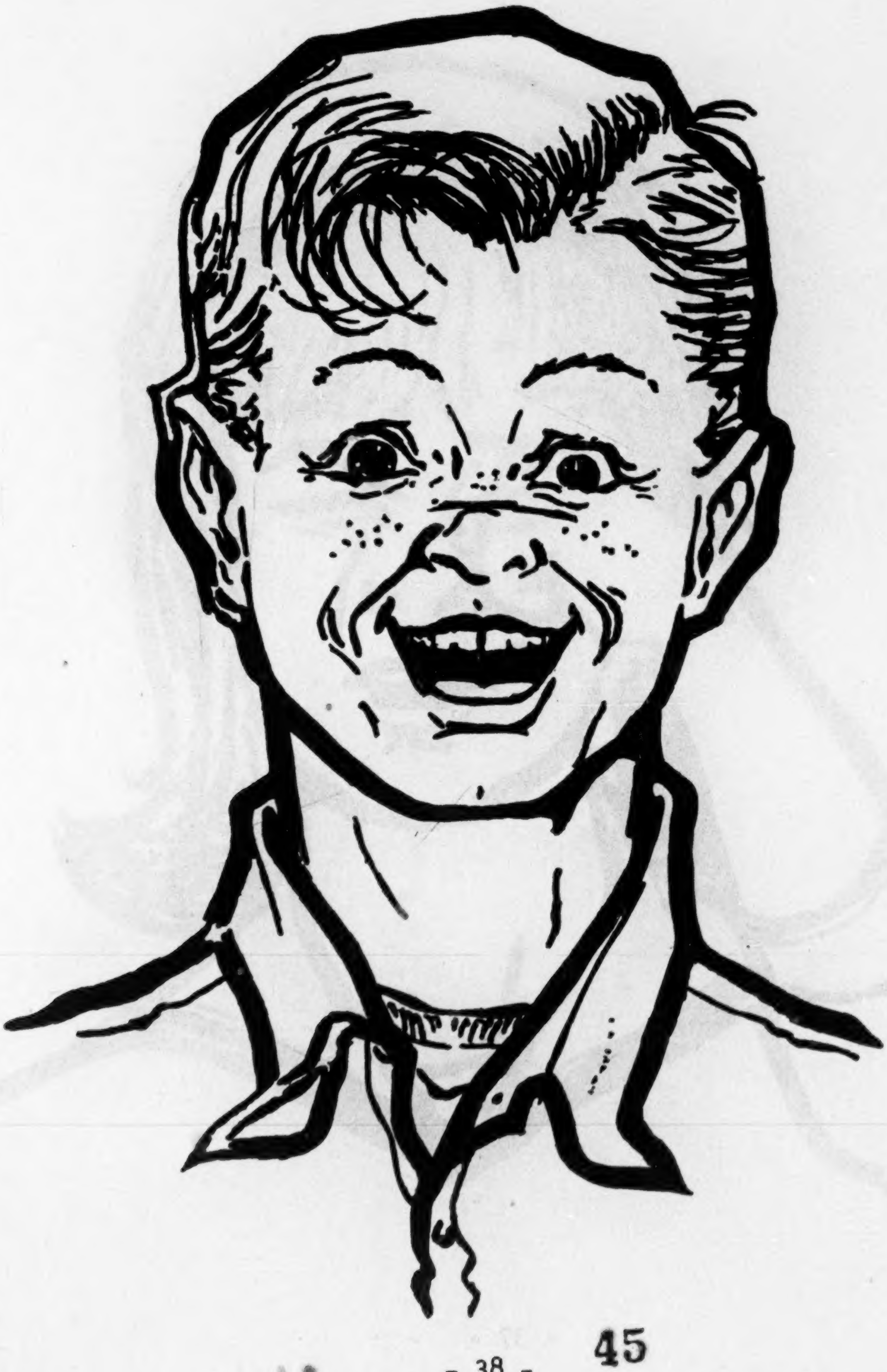
WHAT IS THIS GIRL DOING?

WHY?

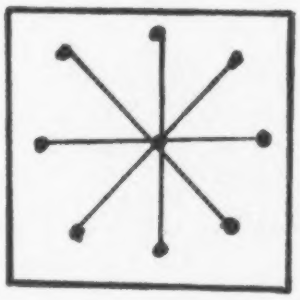


WHAT IS THIS BOY DOING?

WHY?

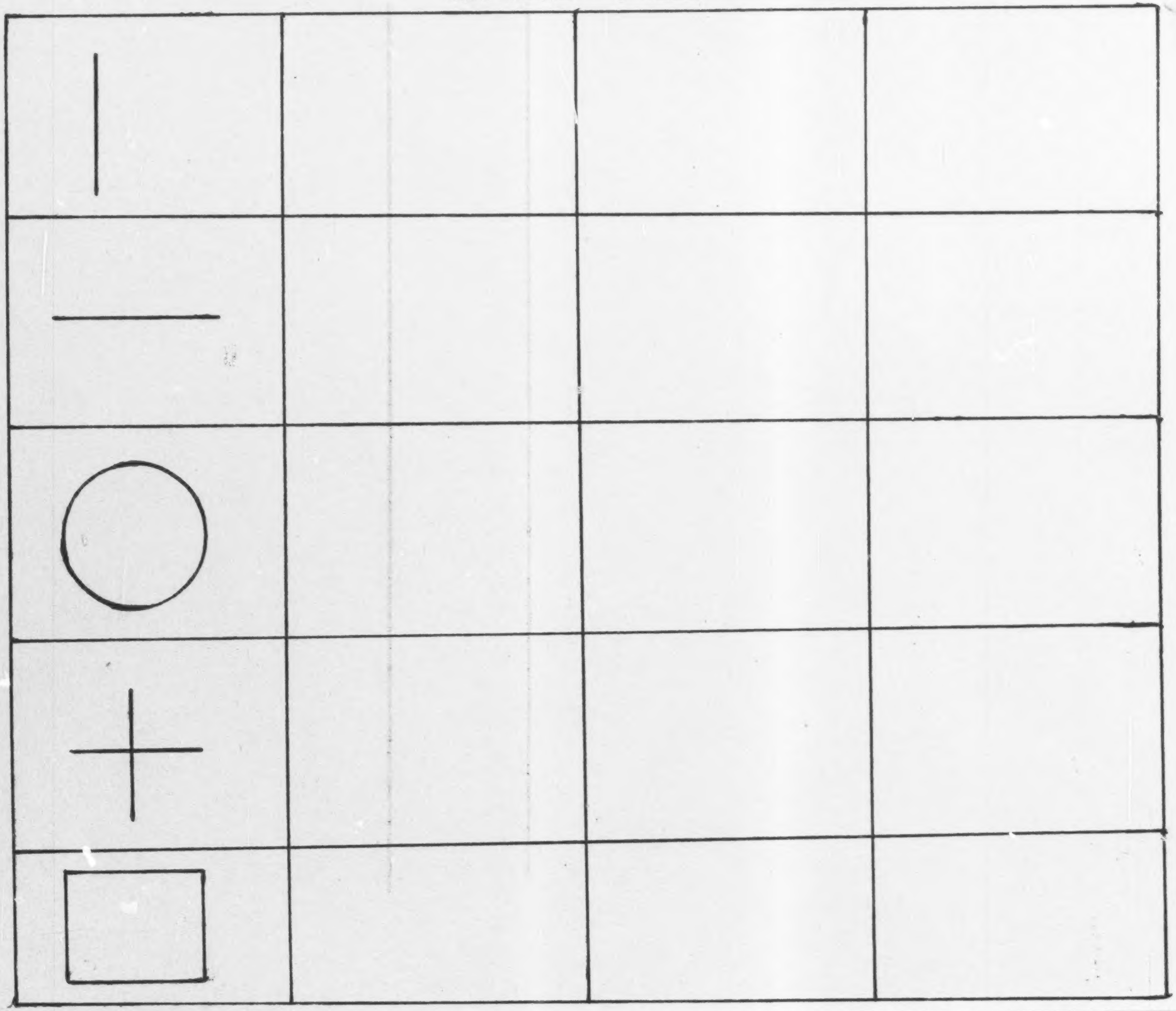


JOIN DOTS, HORIZONTALLY AND VERTICALLY

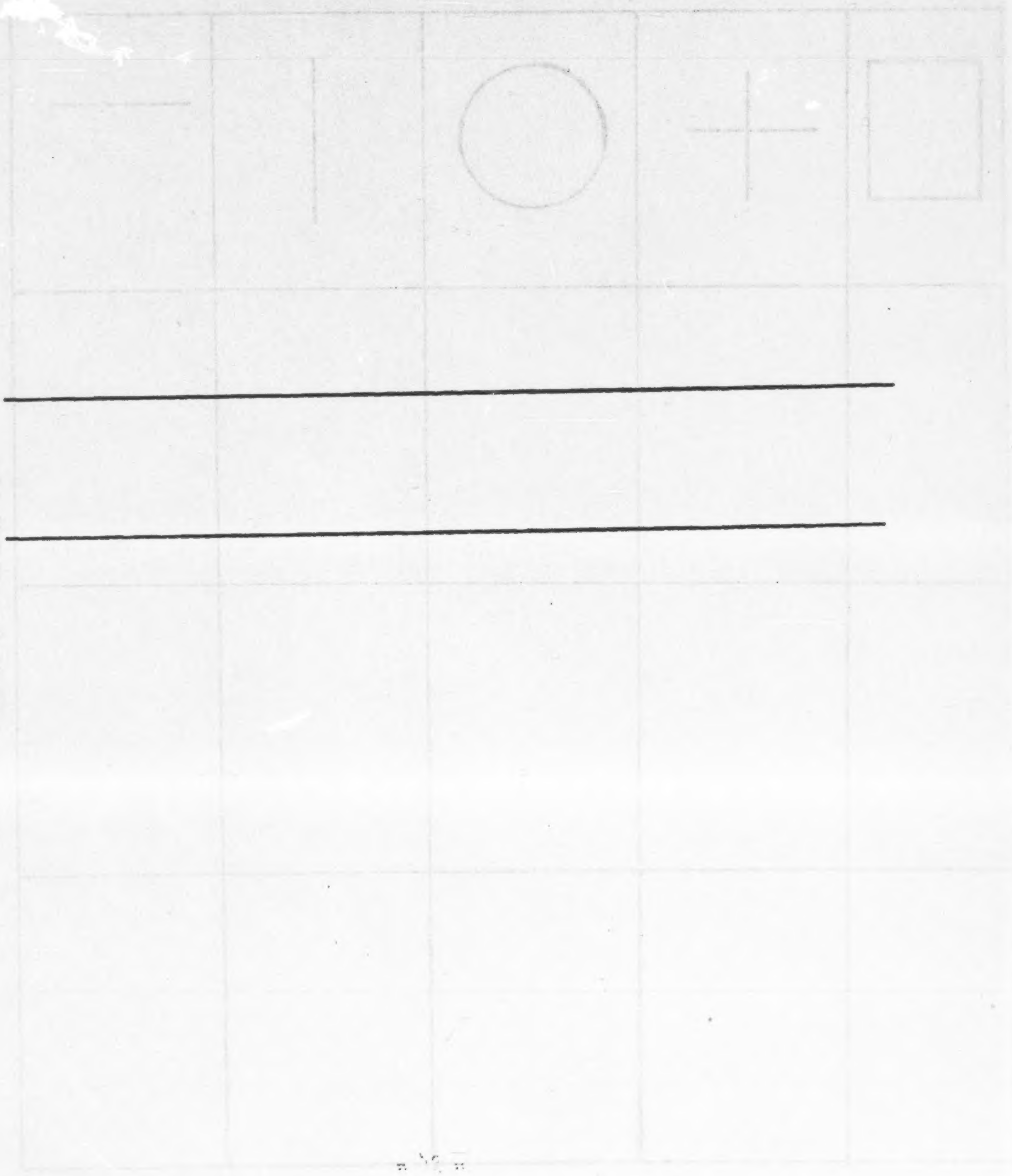


JOIN DOTS TO MAKE STAR

COPY SHAPES - 3 TIMES -



COLOUR IN BETWEEN THE LINES



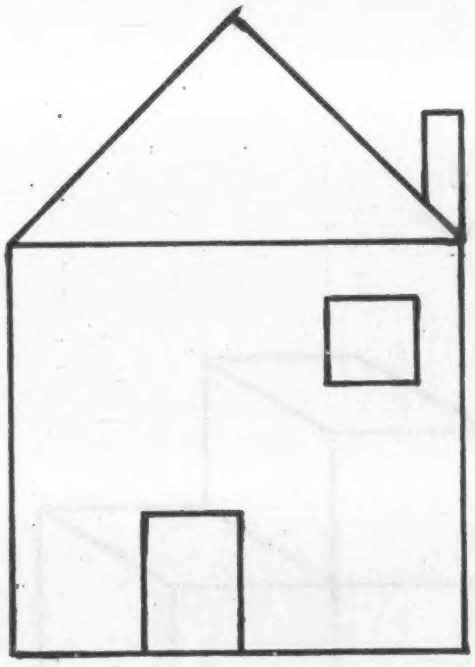
COPY LETTERS - 3 TIMES -

Aa			
Bb			
Cc			
Dd			
Ee			

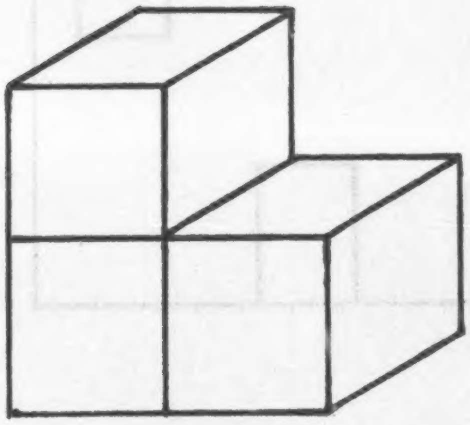
COPY NUMBERS - 3 TIMES -

2			
3			
4			
5			
6			

MAKE A HOUSE, LIKE THIS ONE
USING SQUARES, RECTANGLES AND A TRIANGLE



COLOUR THESE BLOCKS EXACTLY LIKE THE ONES IN FRONT OF YOU ON THE TABLE



BASIC SKILLS ASSESSMENT
Page 1

DATE THERAPIST

DIAGNOSIS DOCTOR

REASON FOR ASSESSMENT

VISION

HEARING

TACTILE a) deep touch b) light touch

c) extinction d) reaction to stimuli

MUSCLE TONE MUSCLE STRENGTH

RANGE OF MOTION (active & passive)

NEUROLOGICAL ACTIVITY

REFLEX LEVEL

If abnormal record on separate sheet

BALANCE

CROSSING MIDLINE

DOMINANCE AGREEMENT

FINE MOTOR CONTROL

GROSS MOTOR CONTROL

PLAY

LANGUAGE INDEPENDENCE

BASIC SKILLS ASSESSMENT

Page 2.

IMPRESSIONS:

SUMMARY:

PERCEPTUAL MOTOR SKILLS:

FINE MOTOR SKILLS:

GROSS MOTOR SKILLS:

ACTIVITIES OF DAILY LIVING SKILLS:

BEHAVIORAL SKILLS:

OTHER:

RECOMMENDATIONS:

PERCEPTUAL MOTOR SKILLS

ACTIVITY NO.	DATE 1		DATE 2		DATE 3	
	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

PERCEPTUAL MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

FINE MOTOR SKILLS

CTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

GROSS MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

ACTIVITIER OF DAILY LIVING

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

13 60

ACTIVITIES OF DAILY LIVING

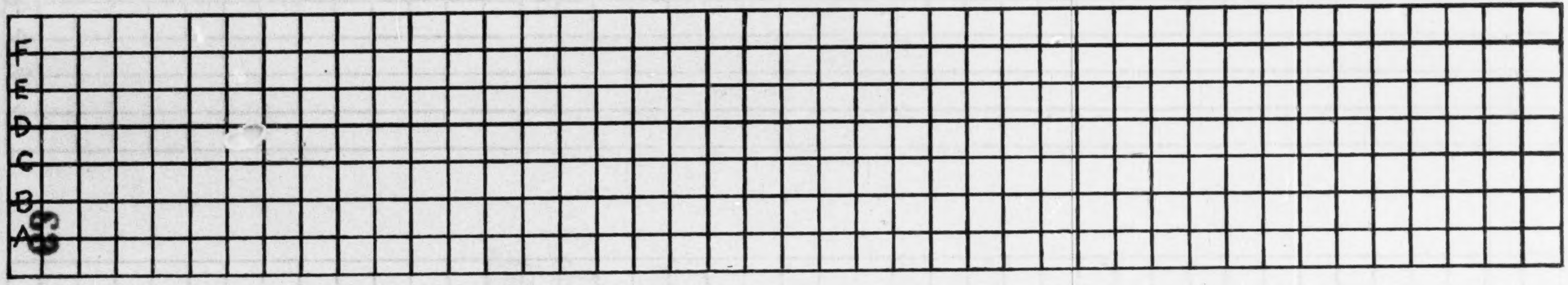
ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

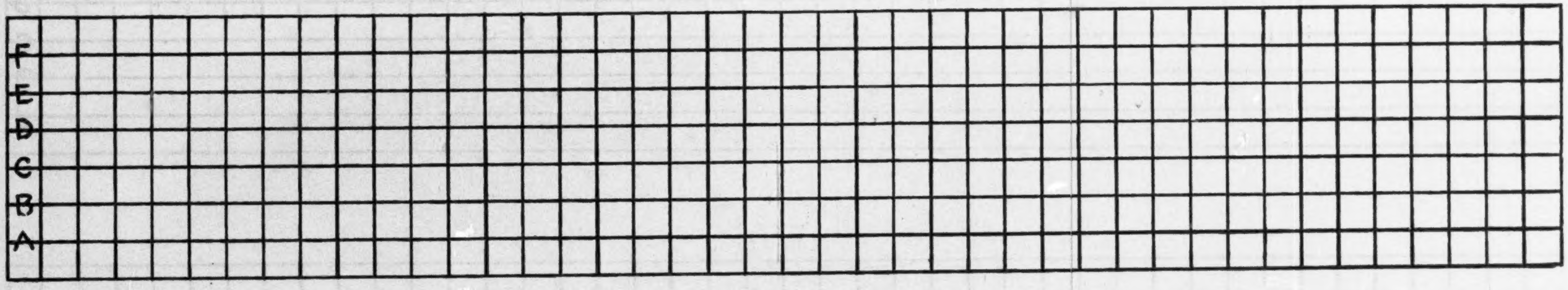
BEHAVIOUR

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

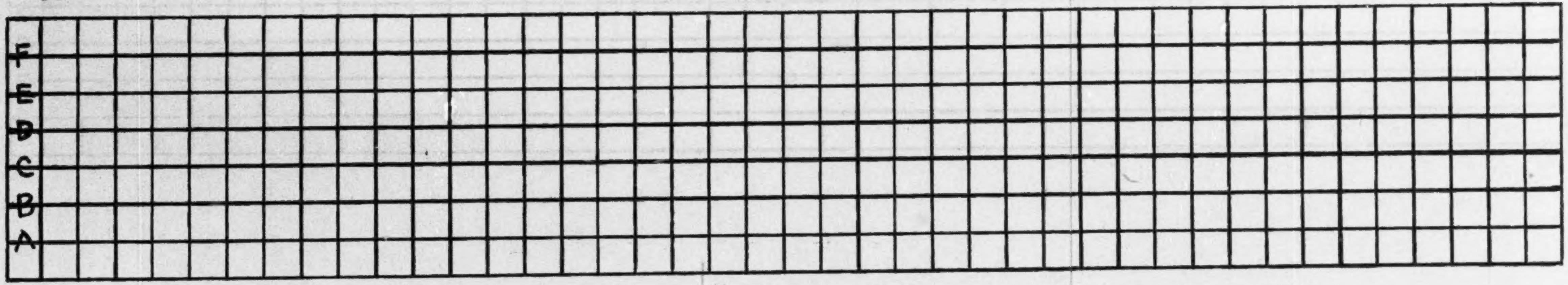
SKILL PROFILE

PERCEPTUAL MOTOR SKILLS





FINE MOTOR SKILLS



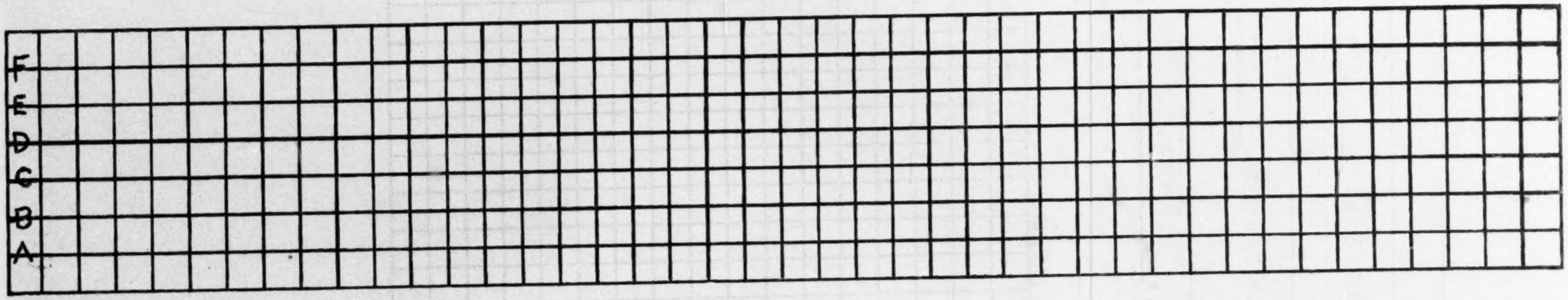
F E D C B A

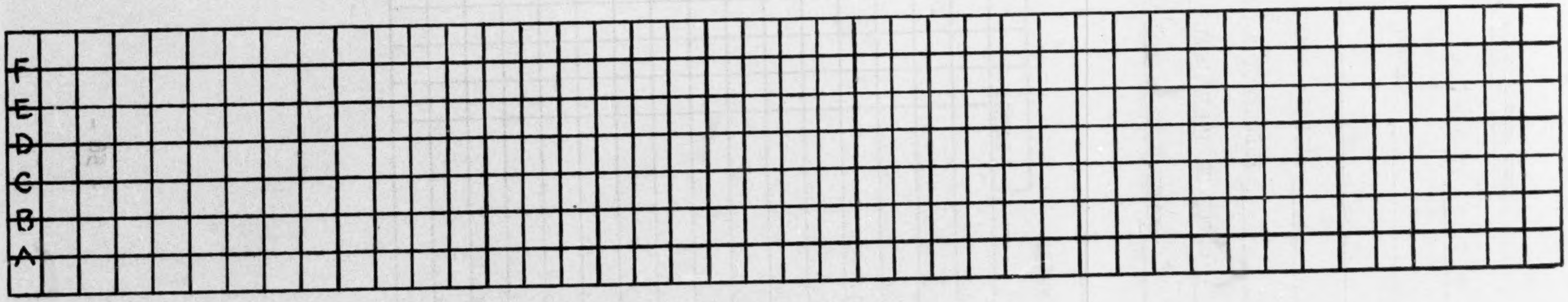
F E D C B A

F E D C B A

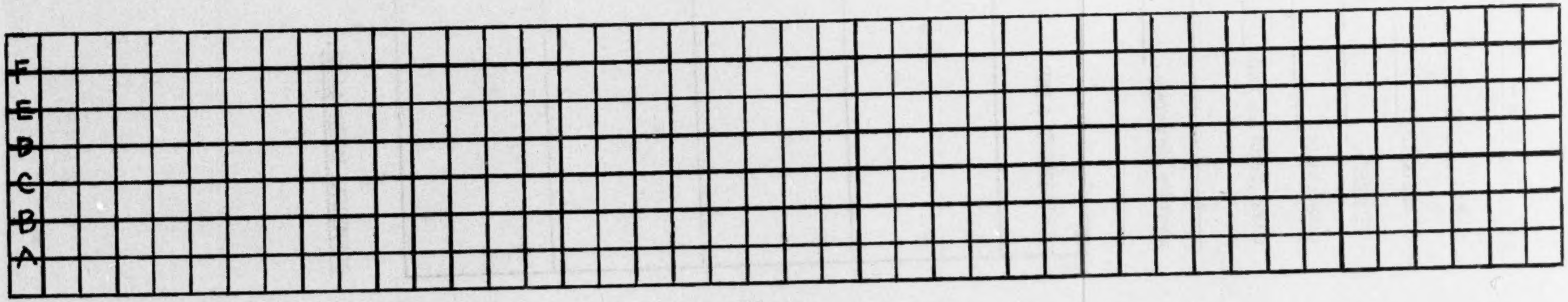
SKILL PROFILE

ACTIVITIES OF DAILY LIVING





BEHAVIOR



TREATMENT PROFILE

NAME: ______________ BIRTH DATE: ______________ CHART NO: ______________

DIAGNOSIS: ______________ PRECAUTIONS: ______________

ADDRESS: ______________ PHONE NUMBER: ______________

THERAPIST: ______________ DATE Rx STARTED: ______________

DATE TERMINATED: ______________ FREQUENCY & LENGTH OF TREATMENT: ______________

______________ GROUP OR INDIVIDUAL: ______________

PARENT PRESENT: ______________ OTHER DISCIPLINES PRESENT: ______________

TREATMENT AIMS	MEDIA	RATING													
		DATE:													
1.	1.														
	2.														
	3.														
	4.														
2.	1.														
	2.														
	3.														
	4.														
3.	1.														
	2.														
	3.														
	4.														
4.	1.														
	2.														
	3.														
	4.														

COMMENTS WITH DATE:

TABULATION & SCORING

The results of the assessment are recorded on sheets 47 to 57 inclusive. A completed sample of the score sheet is included in appendix I.

Section 1

This section is not scored using the rating scale. The observations and results are recorded in the space provided on the front page (pg. 47) of the score sheet. An estimate of the effect of any deficits in the Basic Senses and Functions on the child's performance in any other skill area is included in the section entitled Impressions.

Sections 2,3,4,5 and 6

All the items tested in these sections are marked under the date of the assessment on the page provided for each section (pg. 49 to 54). The number of the activity is recorded in column headed Activity Number. In the rating column the tester marks the appropriate letter and number beside the activity number. If this is the child's maximum performance allowed according to his physical disability, the letter 'M' is also included. Any further comments about the performance are included in the comments column. Behavior and activities are rated according to the amount and type of assistance required to achieve successful performance or appropriate behavior responses.

IMPRESSIONS

This section includes: comments on the response of the child to the test situation, estimates of the validity of the test results, and an opinion of contributory causes for any impaired functioning indicated by the assessment.

SUMMARY (pg. 48)

The summary includes the results of the child's total range of performance in each skill area, from the age level in which he is achieving every item to the age level in which he is achieving no items. It then describes briefly the conditions under which the child appears to be functioning at his best or conditions which improve his ability to perform in deficient areas.

RECOMMENDATIONS (pg. 48)

This section includes suggestions for further management, other assessments indicated, type of treatment suggested, or referral to another source. If treatment in Occupational Therapy is indicated, the aims are briefly outlined.

SUBSEQUENT ASSESSMENTS (pg. 48)

These are graded in the appropriate columns under the date of the assessment. The Impressions, Summary and Recommendations are written in the same manner except that the summary statement makes a comparison of the child's performance with the previous assessment, specifically mentioning areas of progress or lack of it.

SKILL PROFILE (pg. 55, 56, 57)

The skill profile is filled in after each assessment if the child is to be treated in Occupational Therapy. The numbers of activities tested in each section are filled in at the bottom of the graph for that section, one number for each line. A dot is placed at the intersection of the skill number and the level of the child's performance in each activity (A - F). The dots are joined forming a line which illustrates the pattern of functioning in that area. Initial assessments are plotted in red and subsequent assessments in blue, green and orange.

TREATMENT PROFILE (pg. 58)

If Occupational Therapy is recommended, the treatment profile is filled out after analysis of the assessment performance and the child's Skill Profile. The treatment goals are then recorded with the media proposed for training recorded beside them. The child's performance on the task is rated with appropriate letter and number after each treatment session. Any further comments necessary are recorded in the comments section with the date of the note. (A completed sample is included in Appendix I)

APPLICATION TO TREATMENT PLANNING

If occupational therapy treatment is recommended after assessment, the results provide a basis on which to assess progress and to plan treatment.

In treatment planning, the ratings recorded in each skill area indicate major areas of strength or weakness in the child's performance and provide specific information about the circumstances under which the child achieves activities at his optimal level. The skill profile provides a picture of a child's performance allowing an easier analysis of data. The organization of the material allows one to review the total performance and to consider all information with a bearing on treatment. Programming generally aims at beginning involvement in treatment as soon as possible, using available knowledge of developmental patterns and learning theory, progressing gradually and reviewing periodically to ensure that the child's basic needs are being met.

Treatment goals are formulated by reviewing the child's total performance in view of our general and specific aims of treatment. Activities were planned from the information received on major areas of strength and weakness, using the circumstances under which the child achieves at his optimal level. Each treatment session is recorded on the treatment profile. The treatment profile eliminates the necessity of making copious notes, and because of the uniform method of recording, makes it less subjective, less time consuming, and less subject to errors and omissions.

The rating of the activities is also a workable sequence for the presentation and teaching of activities in each skill area. The basis of this programming would be to facilitate the child's movements in abilities and activities from a rating of 'A' to 'F'. The basic method of achieving this would be to provide experience at the child's present functional level in addition to the stimulus and cues for performance at the next level. As he becomes proficient at one level, opportunity to try the activity at the next level is gradually introduced.[9]

For example, if the child was at the stage of stringing beads with physical assistance, by modifying the media, as the child becomes proficient in stringing large beads with a stiff string, the therapist would perhaps demonstrate small beads with a stiff string and encourage the child to try this. The trial of this new method does not mean that it immediately replaces the old, but that the child is provided with an opportunity to do both until he indicates willingness to give up the old activity.

To assess progress, the assessment battery is repeated after a certain period of treatment and results are compared with the original assessment. Progress in treatment can be illustrated in three ways:

1. Comparison of rating performances on treatment activities in each section.
2. Comparison of rating of performance in retesting.
3. Graphically by making superimposed pictures of the child's performance in retesting on his skill graphs.

Summary

A unified approach to assessment and performance rating for treatment planning in Occupational Therapy for children functioning from a 3 months to a 6 year mental age has been described. The development and designing of the assessment and rating procedures were based on the need for a closer relationship between assessment and treatment procedures. The assessment battery was designed to provide all the information necessary for individual treatment of young children in an organized manner. The design emphasizes the skills and abilities of the child, establishes a level of performance in five major skill areas and provides cues for an appropriate approach to treatment. The rating technique was designed to provide a starting point for treatment activities in all the developmental skills, and a method of demonstrating progress in treatment.

Discussion

It is felt that this approach to paramedical assessment and treatment might be particularly useful in improving the efficiency and effectiveness of treatment by facilitating exact recording of treatment and progress in treatment. In addition, it is anticipated that this type of system will facilitate research in the areas of assessment, treatment techniques, and results of treatment because studies and comparisons of data are easier. This method of recording data is compatible with mechanized systems such as punch cards and computers which are becoming the modern tool for recording and sorting data in medical science.

At the moment, however, this is hypothetical, as the assessment and rating system need to be applied in a controlled way to learn more about the efficiency and reliability of the system. Also, they need to be validated, and the necessary parts of the procedure standardized.

METHODS OF PLANNING PROGRAMS

When the results of the assessments have been tabulated, the therapist analyzes them and, if Occupational Therapy is indicated, plans a program accordingly. The analysis of performance includes consideration of the following points:

1. Was his performance even (at about the same age level) in all areas?
2. Was his performance scattered in various age levels?
3. Is there a particularly deficient area of functioning; an area much lower than the rest of his performance?

If the performance of the child was relatively even, the child should be provided with activities which will expand his repetoire of skills within that age level; some activities involving the same level of skill and some which will stimulate progress to skills at the next developmental level.

If the performance of the child was scattered, treatment activities should be planned to fill in the gap within the child's range of performance, starting with activities he is not accomplishing in the lowest age level. If, however, the aim of treatment is to suggest appropriate play activities, suggest activities which the child is already accomplishing.

If a deficient area of functioning is present, activities are initially designed to promote development in this area. For example, if balance, coordination, or muscle strength are abnormal, specific activities following normal development sequences are suggested to help with these problems. If perceptual-motor disability seems to be a major reason for poor performance, activities increasing skills in this area are emphasized. If behavioral difficulties and poor work habits account for poor performance, treatment is initially geared toward managing the behavior. It is important to note that areas of deficit functioning are focused upon only when they affect the child's total developmental pattern and when they have not already been developed to the maximum.

Activities are initially presented to the children according to the method which has been found to be most effective in the assessment. For example, if the child is unable to stay seated at a table, he is presented activities in the C.P. kindergarten chair. If he is unable to structure it himself, the approach to the activity is organized for him. Directions are verbal, demonstrated or kinesthetic, whichever elicited the best response in the assessment. The kind of environment in which the child worked best is chosen for his treatment setting. Activities from areas of successful performance are used to work on the areas of poor performance.

Following are two examples:

1. If work habits are very poor and gross motor skills are very good, gross motor skills will be used as the media for a program aimed at improving work habits.

2. If very poor motor planning abilities seem to be accounting for poor performance in many areas, a program aimed at improving motor planning will be designed beginning with activities in which the child is successful.

If the structure of the home, the equipment and the daily routines of the child are not conducive to his best functioning, suggestions are made for modifying the home environment. These suggestions must, of course, be realistic if the family is expected to follow them through successfully.

If the child is a behavior problem, it is hoped that the family physician will be actively involved in helping the family with the difficulties. Medication is often helpful, as are concrete suggestions and demonstrations of methods for coping with the disruptive behavior which are incorporated into the home programs. The parent learns how to manage the child's behavior in a specific real life situation. The parents are encouraged to incorporate suggestions on activities of daily living and behavior management into their daily routine when they are successful with them in the more limited sphere of the home program.

The actual mechanics of program design are best delineated in point form. The following apply to the design and implementation of all home programs, whether presented to parents or to volunteers:

1. The program is typed, a copy is given to the parents, and the program is demonstrated in the hospital to the parent.
2. The activities, the approach to activities and the structure of the program are written out in as much detail as possible and in language which the parent can understand.
3. The programs include developmental activities designed for the child in the areas of primary need.
4. The parents are assessed in their abilities (both intellectual and emotional) to carry out a program.
5. Parents whose basic needs are not being met and who do not have the ego strength necessary to cope with this added responsibility are not given home programs.
6. In the follow-up visits, the parent demonstrates his work with the child to the therapist. He is provided with opportunities to ask questions or to make suggestions. The therapist modifies the program if this is indicated, at the same time discussing and demonstrating any new concepts or skills. New suggestions are written or typed for the parent.

The approach to planning programs must be flexible enough to fit the needs of many different parents and children. The flexible aspects of designing and implementing programs are determined by the results of the assessment, and variations include:

1. The assessment of the home environment. This is considered essential if the therapist has any questions about the feasibility of carrying out a program at home or if the management of the child is likely to involve structuring of the home environment.
2. The number of times the child is seen for assessment before the program is presented.

3. The number of times the parent has the program demonstrated before he is asked to try it.

4. The frequency of reviewing the program by the therapist and the intensity of supervision offered to the parent.

5. The number of items included in the program.

6. The expectations placed on the parents in terms of how often they are instructed to do the activities in the home setting.

7. The coordination of the program with other disciplines involved in the treatment of the child and family.

8. The coordination of the program with other types of treatment offered in Occupational Therapy.

9. The activities and emphasis of the program itself.

The most important point to remember in home programming is to provide the parents with activities in which they can be successful. Parents should not be provided activities or techniques to try until the therapist is sure the child can accomplish them and is reasonably sure that the parent can help the child to do them.

These are the necessary considerations in the general planning of treatment programs. Following now is a discussion in detail of more specific considerations for individualized treatment planning.

SPECIFIC TREATMENT TECHNIQUES

An eclectic approach to treatment is used which attempts to combine as comprehensively as possible techniques at a therapist's disposal. The principles of treatment outlined in the introduction are used in all the programs, with specialized methods adapted to the child's specific disabilities. If a child has motor deficiencies in addition to retardation, the motor aspects of his disability are focused upon in order to develop and maintain maximum ability and to prevent contractures or deformities which will restrict other possible areas of development. Treatment will emphasize such areas as inhibiting primitive reflexes and normalizing muscle tone in developmental activities. For example, in the early management of a spastic cerebral palsied infant, home programs would include body positions for the baby which would decrease extensor tone, equipment to help promote maximum independence, and activities (diapering, washing, feeding, sleeping) to be done in these positions or utilizing this equipment. These treatments of children with a motor deficit might include such specialized techniques as: Proprioceptive Neuromuscular Facilitation,[1] Rood[1] or Bobath Facilitation,[1] and specialized equipment or adapted utensils.

Treatment of perceptual-motor deficits includes the use of commercially available training material, Frostig[13] or Maney[32] in addition to any that one may design for himself. The sequence of perceptual-motor development outlined by Ayres[2] is used as a guide in treatment oriented to the development of perceptual-motor skills. The stages as defined by Ayres and activities to promote development of skill in each stage are as follows:

Stage 1

Stage 1 is the period of recording tactile, vestibular, kinesthetic, visual, auditory and postural stimuli. This is the work of the infant before he becomes ambulatory. Activities used for this stage of development should consequently provide sensory stimulation. Toys for tactile stimulation should present different textures and surfaces. Warm fuzzy blankets, warm and cold baths, hard, soft and cool surfaces also expose the child to different tactile environments. The child is provided with vestibular stimulation when he is picked up, rocked, swung or placed in different body positions. Kinesthetic stimulation is enhanced by encouraging both gross and fine motor activities. The child receives visual stimulation from bright, shiny toys, colored lights, television, or any movement of people or patterns. Postural stimuli are recorded when the child's position is changed. Possible positions are: lying on the stomach, back or side, sitting in an infant seat or propped up with pillows, or dangling in a Jolly Jumper. Auditory stimuli are furnished by keeping him adequately exposed to music, musical toys, rattles, people talking, animals, streets and stores. This is the stage of development when not much equipment or toys are necessary, as any home is likely to contain ample amounts of the required stimulation. In treatment one only has to be aware of what one wants to accomplish, then the appropriate selection and guidance is possible.

Stage 2

This stage of perceptual-motor development includes body scheme, gross motor planning, perception of simple forms, and awareness of position in space. This phase is expected in a toddler who is learning to walk and climb and he literally becomes preoccupied with these types of activities. "He is always on the go, never sits for a minute, has to be watched every second." When providing toys and activities for children at this level, one would include those for: a) the development of body scheme, which includes naming parts of the body, learning to move the body in different positions, standing, sitting, crawling and climbing, b) gross motor planning, which includes activities not only for mastery of coordinated movements, but also for learning to use these skills in other ways. For example, after the child can stand, one tries him bending down and then standing up again, learning to push or pull a toy, sitting on chairs, sitting on toys and pushing them with his feet, marching, rolling a ball, walking up high on a board, walking up a hill, running down hill and stopping when he wants. These are all activities involving planning the movement of the total body which occur very naturally and quickly in normal development; c) perception of simple form, involving such activities as the manipulation of basic shape form boards, 2-3 dimensional stacking rings, interlocking barrels, single inset puzzles, large beads for threading, pop-it beads, stacking cups, blocks and crayons. It involves making lines and circular patterns and identifying common objects real or pictured; d) awareness of position in space; activities fostering this include those calling for the location of objects first in relationship to the total body, then to the individual body parts and finally, to each other. Among them are obstacle courses (to go up, down, under, around and between) and equipment on which to swing, climb, jump, and slide. Also, constructive equipment such as scissors, paper, glue, clay, water, sand, crayons and paint with which to color, cut, glue, design, fold, build, pour or shape are good.

Stage 3

This includes fine motor planning, more skilled perception of form and space, and the establishment of laterality. This phase is expected in the pre-schooler of 4 and 5 who is learning about colors, numbers and writing, and is interested in playing house and school with other children. Activities for children at this stage of development include coloring books, sticker books, brush and finger painting, drawing, pre-writing activities of tracing stencils and forms, learning how to make basic shapes and to combine them into drawings of familiar objects; joining dots, cutting out, pasting, sewing cards, hammer and nail sets, tea sets, 24-50 piece puzzles, work books and materials prepared specifically for pre-academic achievement (such as the Frostig and the Continental Press; publishers of perception training materials). This is the level when children need and ask for a great deal of equipment and toys, and every effort should be made to provide them with at least the basics.

Stage 4

Stage 4 includes reading, writing, arithmetic, concept formation and activities of daily living. All of these are part of the development of the normal school child of 6 and over. Reading, writing and arithmetic are definitely the sphere of the teacher and will not be dealt with here. However, activities of daily living are usually taught in the home, so we will mention them briefly. The inclusion of Activities of Daily Living in this level of development indicates that the child is now ready to develop complete mastery and independence in the areas of dressing, feeding, toilet and grooming. Training in these activities is often started much earlier, but it is important to realize that the child will not become completely independent until he has reached this stage of perceptual-motor development. Therefore it is usually sound practice not to expect the child to perform in the activities included in Stage 4 until he has mastered most of the activities included in previous stages.

In teaching Activities of Daily Living, a good guideline is found in the use of skills in the assessment, as this gives some idea of the expected order of their development. Activities which can be used to encourage development of daily living skills are: button and zipper boards or books, wooden shoes to lace and tie, large dolls with large clothing, books about daily living activities, dress-up clothes and old large clothing of the parents or siblings.

In training children with sensory deficits, the therapist uses specialized material designed for the treatment of the blind or deaf. The principle of treatment is to develop maximum use of the deficient sense and to overdevelop remaining senses to compensate for the loss of sight or hearing. Thus with blind children the development of auditory, tactile and olfactory abilities is the focus. In addition, the parents are taught how to arrange the child's home environment and how to behave with the child so that he may become as independent as possible. Specialized material and training techniques are available from training institutions for the blind and deaf. If possible, treatment is coordinated with an expert from one of these institutes; however, unfortunately the institutes frequently make normal intelligence an entrance requirement.

In programs designed to foster the development of socially acceptable behavior and good work habits, the therapist reacts normally to the child's behavior performance (as society in general would react). This means she does not accept or condone socially unacceptable behavior or performance below the child's level of capability. This means that the therapist must understand both normal and pathological behavior development and be able to utilize various techniques for managing and controlling behavior resulting from organic and psychological pathology.

Normal Development

One needs to consider the normal stages of development of behavior, because as in all other areas of development, the retardate's progress is slower, with longer intervals between each stage. The receptive baby who only takes and does not give and requires that everything be done for him up to, say, 6 - 9 months, is sweet and lovable even if somewhat demanding. However, if these demands continue for two to three years, it becomes an entirely different matter. The normal hyperactivity of the toddler who is into everything and has to be watched every minute of the day (the testing behavior of the 'terrible twos') is barely acceptable for the 6 months to 1 year that he is in this phase. When it stretches into years it naturally becomes extremely wearing for the families. Also, as they may not understand that this behavior is due to slow development, they are liable to place the child in situations with which he cannot cope, or they may stop making any demands of the child.

The most important point in attempting to create a psychological environment for healthy development of behavior habits is to help parents to reward socially acceptable behavior and not to fall into the trap of giving extra attention for socially unacceptable behavior. In retardation, this normal hyperactive or testing phase may last for several years, but with inappropriate attention, the child will learn to use undesirable behavior as a means of getting attention, and perhaps will retain this behavior as a feature of his personality. For this reason, it is important to help the parents to define the types of behavior they intend to stop, and then to help them to do so firmly and consistently with no exceptions (as retarded children can not be relied on to generalize) and to decide which types of behavior they will tolerate for the time being. They must let the child know what they will not accept and also what type of behavior is desirable and then reward this desirable behavior consistently in a meaningful way.

Specialized Techniques

There are many techniques for the management of organically disturbed behavior. Our treatment combines many of these techniques with a medical approach by adjusting medication and milieu where indicated. Strauss, Lehtinen, Kephart and Cruickshank in their approach to hyperactive behavior emphasize the need to decrease extraneous stimuli and increase pertinent stimuli. Cromwell[10] emphasizes the need to increase stimulation. Some behavior therapists say that a conditioned response based on operant conditioning techniques is the most successful method of patterning behavior with retarded and autistic children. The position taken throughout the manual is to utilize all of these. The environment and activities are planned to reduce undesirable or distracting stimuli and to intensify the stimuli pertinent to the task to be learned. At the same time, a method is provided to condition the child's response by consistent repetition of positive or negative reinforcement for desired or undesired behavior.

The environment of each treatment session is structured so that the child can perform at his maximum level. The structuring includes the room, the activities and the interpersonal relationships. The structure may vary from completely structured surroundings, blocking out all external stimuli, with a uniform time, space and approach for every activity, to a free play situation in an openly stimulating environment. The aim of treatment is to progress the child through varying degrees of structure until he can provide, to the best of his abilities, his own order to the environment.

Intensification of sensory input helps some children attend to the stimuli presented. The attention span of the hypotonic disinterested child or the hyperactive distractible child is sometimes increased by exposing them to strong sensory stimuli such as: rubbing ice up and down the arms and legs, administering a cold shower and a brisk rub with a towel, listening to loud music, or a good sniff of a strong-smelling non-toxic substance. These strong stimuli seem to induce an alerting reaction in the child which causes him to show more interest in activities presented immediately afterwards. If the child becomes panicky, these stimuli should be stopped but later resumed gradually, as adaptation to this intense stimulus may be slow.

Reduction of stimuli is accomplished by consistently providing order and organization to every action and activity. Quiet rooms, containing only essential equipment, and a quiet, firm, organized approach to the child, with a time, place and uniform manner of doing everything seems to help some retarded children to pay attention and thus learn. Examples of the use of this approach in a child's daily routine are:

1. Eating: Have the child in a quiet room with no other people around. Give him one appropriate utensil and a small dish of food, using a suction plate if he is inclined to throw things. He will have something to drink or more to eat after he has finished. If he asks for something different, take away the first food and then give him the new.

2. Playtime: Give him one toy at a time. When he loses interest, put this toy away and bring out another one.

In some instances of hyperactivity, it is necessary to attempt to structure the total environment. This may necessitate liberal use of locks, hooks and eyes, sliding bolts, high fences, gates, playpens, sleep-safes and such, in order to make supervision easier for the mother. In addition to this, keeping the part of the house most frequented by the child free from knick-knacks and loose objects helps control children who are always touching everything.

In treating disordered behavior a knowledge of psychodynamics is also necessary. An example of the use made of this knowledge is the approach used when trying to help a parent learn how to control a child's behavior. As we do not suggest techniques to parents until we know they work, children with disordered behavior are usually seen many times by the therapist before a home program is designed. During this time, the parent is included in the sessions with the child. The therapist explains what she is trying to do and how she will try to do it. That is, she will try to control the child's behavior so that he can play constructively and stay within the limits of a given situation. She then demonstrates the techniques. The parent has the opportunity to see that the therapist also is not always successful, and that she reacts to failure by attempting another method. The therapist explains that it is easier for a stranger than for a parent to do these things, because the stranger does not have such an intense involvement with the child. It is easier to see someone else's child upset or crying. The parent is thus free to leave at any time he finds the situation intolerable.

In the case of long-standing behavior disorder, parents frequently need to work through feelings connected with a change in approach to the child's behavior with someone other than the therapist, but who is also familiar with the approach being used. If the child is receiving medication, the doctor may be the most suitable person; otherwise, a social worker may be the best choice.

This approach attempts to take into account the dynamics of the child's and parents' behavior and feelings, in order to modify them into more socially acceptable and more constructive patterns.

Activity Analysis

Activity analysis, or breaking activities into their component parts, is another common treatment technique. Developmental patterns provide a basic progression from simple to complex skills, but understanding the component parts of the individual skills allows one to make the steps even smaller. With retarded children, particularly multi-problem retarded children, this additional breaking down of activities is frequently required to facilitate learning.

Bead threading can be used as an example of breaking an activity down into its components. This activity involves:

1. Being able to hold the thread and the bead, one in each hand.

2. Being able to let go of the thread and bead when necessary.

3. Use of two hands.

4. Fine motor control to bring the thread end into and through the hole in the bead.

5. Eye-hand coordination so that the eyes follow the hand as the bead and the string are brought together.

6. Spatial relationships; the knowledge of where the bead and the string are in relationship to you, your hands, and each other.

In applying this information to treatment programs, the following points become apparent. The therapist may omit the activity if the child is having problems with every part of it. However, if he has trouble with any one part of it, this part should be examined and perhaps modified. Examples of possible modifications for bead threading, in order of the above breakdown, are:

1. Larger beads and larger thread which are easier to hold. This may even go so far as using large blocks with a hole in the middle and a round stick to put through the hole.

2. If the child does not have active release in either hand, the activity is too hard for him, but if he can release with one hand, he can hold the bead in the hand which has impaired release, as it is not necessary to let go of the bead immediately.

3. If the child only has the use of one hand, it may be necessary to hold the bead for him or to teach him how to thread beads by placing the bead on the table, hole side up.

4. If the child cannot hit the hole of the bead, larger beads and stiffer thread are again, somewhat easier. It also helps to tell the child to watch what he is doing with his hands and to look for the hole in the bead.

5. If the fine motor control is poor, resting the arms on the table and making the end of the string stiff with glue or tape may help.

   If the child does not understand the spatial relationships involved, he will most likely not comprehend the activity. Again, try using easier, larger objects. Guiding the child's hands in the pattern of movement sometimes helps, as does taking over one of the component parts of the activity, such as holding the bead or the thread for the child and doing the activity with him.

PROGRESSION OF PROGRAMS AND ACTIVITIES

Progression is going step-by-step from simple to complex applications of a given skill. In treating retarded children, these steps are necessarily smaller and slower. The procedure provides the child the opportunity to practise and apply newly acquired skills in many different ways. The skill emphasis is changed only when the child has mastered that skill in a variety of activities, and can transfer the ability from one activity to another. The pace of progression should never deprive a child of success experiences, but rather should add to the number of activities in which he can be successful. Therefore, new activities are introduced slowly, and adapted to the rate of development.

Working from the simple to the complex may be demonstrated by the following examples:

1. Large objects are easier to handle than small ones.
2. Large muscle movements involving the whole body are easier than small movements involving many parts.
3. Large (loose) clothing is easier to put on than tight clothing.
4. One word commands are easier to follow than six word sentences.
5. Activities involving two hands together doing the same thing are easier than activities with two hands doing different things.

Progression may be applied also to the method of presenting a given activity. In learning a skill, there are many steps between not being able to do it at all and being able to do it completely alone in any milieu with any media. This applies to all types of skills, behavioral as well as motor and perceptual. In teaching behavioral skills, progressive structure in the environment may be used to teach or shape the appropriate response. Treatment involves planning the presentation so that the child performs at his maximum level. The structure may vary from completely organized surroundings to a free play situation in a stimulating environment which requires the child to organize himself. The aim of progression in this case would be to expose the child to situations involving less and less assistance, until he can provide, to the best of his abilities, his own order to his environment.

One further way of applying progression is in the manner of presenting activities to the child in the assessment. First, he is given verbal assistance, then he is given physical assistance. If the child cannot do the activity after the initial directions, they are repeated. If he still can't do them, he is given verbal directions at each step of the activity. If he still can't do it, the activity is demonstrated and then if necessary, he is guided through the motions of the activity. It is, of course, presumed that the child was initially interested in the activity. If the child showed no interest, the sequence is applied in reverse.

The following is an example of another series of steps used for teaching skills, taken from An Experimental Curriculum for Educable Retarded Children,[9] one of the better texts on the progression of activities. The approach is:

1. Breaking down the lesson into small steps.
2. Prompting of successive steps through the preceding items or by hints given explicitly for that purpose.

3. Gradual withdrawal of cues, demonstrations, prompts and hints as the autonomy of the child becomes more evident, as he learns to disregard the irrelevant and to make selective use of elements relevant to a correct response.

This same book contains charts of activities in all areas of living, which are divided into small progressive stages according to the principles outlined above. For example, the aim of teachers in programming children to learn to express their emotions is to teach the child a) to recognize his response, b) to relate the response to the cause, c) to express himself in a socially acceptable way, d) to verbalize his feelings, and e) to plan appropriate responses to his feelings.

The mechanics of home programming involve reviewing the child's performance in the program activities in each consecutive visit. After the program has been initially demonstrated, you withdraw and each time the parent and the child are seen again the parent works with the child. The therapist watches, evaluating and comparing the child's performance with previous performances. She moves ahead with activities which the child has mastered and those which the parent thinks should be moved ahead. The therapist may also change activities which the parent or child want to change, but this is not necessarily a step forward, but rather the insertion of a different activity requiring the same types of skill and ability. This is to teach the child how to transfer his skills from one medium to another, and is a very important aspect of treatment, especially with retarded children who have great difficulty generalizing. It is also important if we wish the skills taught in the home program to become a part of the child's daily habits.

APPARATUS AND EQUIPMENT FOR TREATMENT

Commercially available apparatus for children, such as infant seats, jolly jumpers, walkers, tommy tippy cups, suction plates, low tables, chairs with arms, the cerebral palsy kindergarten chair, toilet seats, potty chairs, bathtub seats and rubber mats have proved widely useful. However, retarded children may outgrow the commercially available apparatus. By using imagination, it is possible to create a home-made apparatus, designed from these products, that will serve the same purpose. If parents know what is needed they are usually very ingenious in finding ways of getting it made.

The materials needed for encouraging development are the toys used by normal children. With careful planning and toy selection, the child can find success at his own level and be guided towards increasing his functional skills. Choice in toys is highly individual and will also depend on the financial status of the family and the availability of toys. It is important to remember that many household articles have a wide appeal for children and can be used as toys. There are pamphlets and books available with instructions for making many types of toys. Some examples would be: making peg boards out of masonite with holes, golf tees for pegs, puzzles out of cardboard, scrapbooks of familiar objects and words from magazines, blocks out of lumber scraps, and stacking cups from different tin cans.

SAMPLE PROGRAMS

Four sample programs have been chosen to illustrate the use of this methodology for home programming.

The first is a home program for a 9 ½ month old child whose whole developmental pattern was slow. She was the younger sibling of another child receiving treatment for hyperactivity, mental retardation and perceptual-motor deficits. The parents were immigrants and had some difficulty adjusting to North American culture. Both were very depressed about the possibility of having another child who was apparently retarded. The mother was seen weekly in Social Service for support and counselling. She was seen every 3-4 months by the occupational therapist with regard to the home program. She had already established a good relationship with the therapist before the program began, and was capable of carrying out these suggestions in the home with guidance and supportive counselling from the social worker. The changes in the programming in three consecutive visits are included.

OCCUPATIONAL THERAPY HOME PROGRAM - MENTAL ASSESSMENT AND GUIDANCE CLINIC - DAY SERVICES BRANCH:

Girl's age - 9 1/2 months
G.M.S. - 5 months
Hand Skills - 7 months

The following suggestions were given the mother with regard to handling the child in the home:

1) Take her with you from room to room as you work or let her play with her sister in her room. Do not leave her alone in her room for extended periods of time when she is awake during the day.

2) Vary her position in the following ways:

    a) On her tummy on a hard surface.

    b) On her back on a hard surface.

    c) Sitting on a supported surface.

    If she starts to fuss, leave her for a few minutes to see if she will change her position herself; e.g. roll over or move along the floor.

3) Provide her with stimulation while she is with you.

    a) Talk to her.

    b) Lay her in front of the T.V. or under a mobile.

    c) Give her toys to handle and mouth (bright relatively small, hard and/or noisy) rattles and kitchen utensils.

    d) Turn on the radio or record player.

    e) Tickle her, play with her, lift her high in the air, spin her around and bounce her.

4) Bounce her on her bottom to encourage sitting.

Progression of Program - 4 months after first program was assigned:
Girl is now 12 months old.

Made slow, but definite progress. She is now sitting up alone and starting to roll, bears weight on her feet with less fuss.

Suggested activities were:

1. Jolly-Jumper; she might cry, but try to keep her in it for five minutes by amusing her while she is there.
2. Supported standing to encourage weight bearing on feet. Hold her knees and bottom and bounce her up and down.
3. Ball rolling.
4. Putting small objects into a container, bottle or tin.
5. Place her on her tummy, put a cookie in front of her out of arm's reach and encourage her to go and get the cookie.
6. Walker.

Progression of Program - 3 Months later.
Girl now 15 months old.

Progressed - now bears weight on feet without crying - enjoys walker - Jolly - Jumper not purchased, has voluntary release now, and starting to babble. Rolls around a lot and is starting to pull herself around on her belly.

Suggested activities this time were:

1. Jolly Jumper (recently purchased by Social Service Department).
2. Walker - continue.
3. Crawling position - place her in the crawling position and then encourage her to try to do it herself.
4. Encouragement should be given to have her try and pull herself up to a sitting position by letting her grab your hands. You start her off.
5. Encourage her to try pulling herself to standing at chair, or while in play pen - again by moving her in the required way and pulling gently on her arms.
6. Encourage her from a standing position to lower herself to the floor. Help her as necessary if she is afraid.
7. Continue ball rolling.
8. Try to get her to imitate placing one block on top of another, or putting a ring on a stick.
9. Continue to have her drop objects into a container.

10. Play singing and talking games, making different sounds and short fun words, la la, da da, ma ma, ka ka, ta ta, ba ba.

11. Music - Encourage her to clap hands imitating you, bounce her on your knees.

The second sample is the initial home program and accompanying letter designed for a 4 ½ year old boy with many developmental problems and an unclear diagnosis. Both parents were professionals coming a long distance to this center because of lack of appropriate facilities for assessment near their home. The covering letter explains the co-ordination with other disciplines in this setting and attempts at co-ordination with individuals working with the child in the home setting.

Letter accompanying program:

Dear Mrs..........

Enclosed is a list of suggested activities for your son which can be used by you in your work with him. The nursery school teacher may also be interested in seeing them. I have discussed language aspects of the program with Speech Therapist,...; so your Speech Therapist may also be interested.

As we discussed in the time you spent with me, my feeling was that your son is a little boy with mild cerebral palsy, a retarded performance with language being at the lowest level of development, behavior which varies from day to day and place to place between hyperactivity and hypoactivity, and difficulty recognizing his response to the activities, people and new situations.

The activities I have suggested for him are activities at the level of development at which he is presently functioning in the areas of development which I assessed. They are designed to further the development in each area.

I have made suggestions about how to carry out the activities which relate to managing his behaviour while doing the activities and relate to the points I was discussing with you in the assessment.

In brief, the most successful way to approach the behaviour of a child like him is with a well ordered, consistent environment which will indicate what you expect of the child in advance, and firmness and consistency in your approach to him as much as possible. This approach needs to be disassociated from affect. If one becomes angry or overly sympathetic the child senses this and will play upon it. In order to use a consistent approach in your family it is of course necessary to discuss these points with your husband to decide upon a general plan of action you both will adopt in regards to managing him.

I hope you have been able to get some leads as to the special education facilities in...and to follow them up. As I mentioned in our discussion in regards to other school facilities in North America, exploring what they have to offer will not hurt, but an assessment of him by these facilities will only tell you whether or not they consider him a likely candidate for their program. It would be detrimental to have too many of these for him and I feel it essential to contact your doctor at the hospital before making a decision so that he can advise you if he feels it is worthwhile the time, money and energy to have further contact with the school or setting.

One further point which we discussed was your concern about giving a fair share of attention to your daughter. If you will recall we discussed the possibilities of scheduling a certain amount of your time weekly to do something only with her. Like Saturday morning to go shopping or do activities together. I know this places a big burden on your time and you might find the best way to do it all is to make a rough schedule for yourself which will include time to work with him, be with your daughter, your husband and yourself in addition to all the household tasks you have to cope with.

I hope you will find the material useful. If you have any questions about this or the activities or suggestions please do not hesitate to contact me. Also please advise me when you would like to come back for a progression or change of the activities I have sent you to-day.

Yours sincerely,

SUGGESTED ACTIVITIES

It is important for him to try to arrange to do the activities at the same time every day in the same place. For the hand activities he should be seated at a small table (nursery size) in a small chair (with arms if possible)..Keep the toys and materials in a box out of his sight. He is to stay seated and work as long as possible. Present him with one activity at a time. He must finish each activity to the best of his ability before starting another one. Be firm, consistent and matter-of-fact in this approach to him.

The gross motor activities can be approached in the same way but may be done in the backyard, weather permitting, or in the basement; perhaps your husband would enjoy doing these with him. The gross motor and fine motor activities could them be done at two different times of the day.

Start with doing fifteen minutes of table activities each day and ten minutes of gross motor activities a day.

LANGUAGE AND SPEECH:

Because this is the lowest area of his functioning and requires special attention at this point, the speech therapist feels that a great deal of verbal stimulation or input is required for him. That is, he needs to be talked to. The language should be simple and sentences kept short. In presenting activities to him the directions should be only two to three words and one step at a time. Actions should accompany the word as much as possible so that he can feel and see the meaning of the word as well as hear it. Try to use the same words for each activity each time that you do it.

In the program I mentioned to encourage him to say words he has heard from you, this simply means to allow him the opportunity to say the words before or after you have said them but do not insist or try to pull words out of him.

In addition to the activities suggested, also talk to him while doing things with him. For example, saying what you are doing as you dress, feed and bathe.

FINE MOTOR, PERCEPTUAL MOTOR ACTIVITIES:

1. PUZZLES - single-inset puzzles, taking the pieces out and putting them back in the correct place. Name the objects in the puzzle as he takes them out and puts them in. Encourage him to say the name with you.

- can start to do four-to-six piece puzzles but requires help putting pieces in the correct place.

2. STACKING RINGS - GRADED STICK - take the rings off, put them on in the correct order. To start with, help him choose the biggest one from only two rings, you keep the rest in your lap and put another one up as he puts one on the stick. Talk about big and small as you do it.

3. BARRELS - Billie and his seven barrels - unscrew, screw back together in order, again only let him choose from two sets of barrels, big and small, using same method as above. He will need help screwing up the barrels. Move his hands in the required way then let him try it to give him the feeling of what to do.

4. PEG BOARD WITH COLOURED PEGS - Start out using only two colours of pegs (red and blue) put them all in a container then ask him to put all the red ones in first. If he picks the wrong colour say no and don't let him put it into the board. Say the name of the colour of the peg each time he puts it in the board.

5. CRAYONS AND PAPER - Encourage him to imitate you making vertical, horizontal and circular lines. Guide his hand to show him how it feels; if he is unable to imitate you he can learn how to make a cross after he can do the others.

6. BOOKS - Books with large pictures of familiar objects and not too many words. Have him turn the pages one at a time, name the objects in the picture and point to them at the same time. Then encourage him to point to objects as you name them. Then encourage him to name the object while pointing to it.

7. CUTTING AND PASTING - Let him hold scissors in both hands. Move his hands and say "open, shut". Show him how you make snips in the edge of a piece of paper with scissors, then hold the paper for him while he tries to snip the edge of the paper. After he has mastered this have him try and cut all the way across a three inch strip of paper. Finally have him hold his own piece of paper and let him first snip it and then cut straight across.

The scraps of paper can then be pasted by him on to a piece of coloured paper to make a picture.

GROSS MOTOR AND BODY IMAGE ACTIVITIES

1. BALL - throwing a ball - he will have difficulty catching so play a game of throw and chase.

- kicking the ball - he may have to lean against a wall to start out with the kicking.

- rolling - sit with legs out and roll back and forth to give idea of trapping and catching the ball.

2. STAIRS - encourage him to try going up stairs one foot after the other instead of two feet on each stair. Use a small staircase, three to four steps.

3. STANDING ON ONE FOOT - play a game of standing on one foot, then the other. Start out with hanging on to something with two hands, then one hand, then no hands. May be done to music or counting to help achieve a rhythm.

4. NAMING AND MOVING PARTS OF BODY - Play an imitating game. You name a part of the body and move it and he moves the same part in the same way. Say name of part and how move has been done. Start with big body parts, e.g.: arm down and up, leg up, leg down, head back, head forward, arm in front and arm in back.

- Toys can be bought at small local toy stores. If you have difficulties perhaps his teacher could advise you as to the best store to get educational toys.

The third home program was designed for a little girl who was assessed in July 1965 when she was 5 1/2. It was initially felt that she would be included in our nursery school program. However, at the conference, it was decided that she was functioning much better than the rest of the children to be included in the nursery group but that she demonstrated some specific perceptual motor difficulties. (Namely, lack of gross and fine motor coordination, and poor perception of simple shapes, forms and space.) Plans were made for her to attend a nearby school for trainable retardates and her mother was given this home program of perceptual motor activities. This is the initial program. Since then the mother has visited the hospital five times for program changes and supervision because of the progress her daughter has made.

RE: BORN:

TO BE DONE IN A TOTAL OF THIRTY MINUTES-----15 MINUTES AT TABLE AND 15 MINUTES TO RECORD.

1. Matching Colours. Coloured button peg board - sort and match colours, then repeat names, also can do with clothing, etc.

2. Form Board - To be made from shirt cardboard, match shapes and colours; shapes to include circle, square, triangle, rectangle, two of each.

3. Single Inset Puzzles - To be made from shirt cardboard and coloured pictures of familiar objects.

4. Matching material and textures - Various textured material pasted on to back of plywood rectangle; make matching pairs.

5. Matching Sounds - Plastic pill containers - place various small objects in them like salt, peas, water, making matching pairs, seal tops and paint bright colours.

6. Circle Stencil - Make from shirt cardboard - use large crayons.

7. Me, Myself and I - My Playful Scarf. Use nothing to Do - jumping, marching, skating, tiptoe, spinning, touch-toes and reach high, roll, clap and tap body parts.

33 1/3 RPM Playing High Fidelity - Premaise, Young Peoples Records #10012.

The fourth program exemplifies some of the suggestions made when trying to help a parent modify the home environment in an attempt to control the child's behavior.

Boy's age - 7 years 1 month

Total Functioning - 2-3 years

Behaviour - major problem - big management problem at home due to hyperactivity and lack of response to limits.

PRESENTING PROBLEM: Boy was visited at home in the presence of his mother for half an hour and the home care worker, for half and hour. He is very hyperactive at home, he is continually picking things up and throwing them either to the floor or out the window. There are seven rooms and six people living in an upper duplex. It is very neat and clean but there are many ornaments around in the hall and rooms. There are hook locks on the grandparents and the aunt's door, but nowhere else. The boy has a room of his own but this leads to the door downstairs and there is only a chain lock on this door, so that it is possible to throw things out of the door. He does not have a chair or a table to work at on his own but he does have very good storage space for his toys and many toys (although some are much too difficult for him). The boy's favorite pastime is watching T.V. although he has already broken one set by playing with the dials.

His work with the home care worker is approached well - however, the table and the room he works in provide too much stimuli. The activities are on the whole appropriate but somewhat too difficult.

His mother is very angry with him and spends a great deal of her time picking up after him. However, she is also very defensive and I question how she will accept the suggestions offered. For this reason they will be presented to the mother gradually and in conjunction with the home care worker and the Occupational Therapist here at the hospital.

TREATMENT PLAN: A. Structural Changes.

1. Bolt lock for bedroom door.
2. Hook and eye lock for bedroom, living and dining rooms.
3. Gate to block off entrance to the kitchen.
4. Removing the nick-nacks he can reach from the hall.
5. Borrowing a kindergarten chair with a tray and a strap from the C.P. Association.

B. Suggestions for Use.

1. He is allowed access to his own room and to the room in which his mother is working. The rest of the doors are locked.
2. His chair and table are kept in his room except when he is watching T.V. He does all his work at his chair and table. He will be gradually introduced to being strapped into the chair when an adult is not with him and he is working alone. It is also to pattern his habit of throwing objects, as he will have nothing to work with for a period of time if he throws them all away. The length of time spent in the chair will be graduated and the child will first sit in the chair at the hospital, then with the home care

Age - 7 years 1 month continued

worker, then with the mother alone, starting in all instances when the child is watching T.V., and discontinued as soon as it proves unnecessary (when the boy can work alone at the table and stay there for 15-20 minutes, watch T.V. without breaking the dials).

C. Behaviour Control and Limits

1. Firm consistent limits should be set at all times by not allowing him to hit or strike anyone (even if he feels it is funny).
2. Wrestling with the grandfather should be limited to a very specific time and occasion.
3. When behaviour is somewhat more patterned, a group experience would prove of value in further behaviour patterning.

D. Suggestions for the Home Care Worker.

1. How to make any activities she is working on easier if they are too difficult.
2. All quiet work to be done in his room at chair and table.
3. Expose him to gradually lengthening periods of time strapped in chair in front of T.V., first with mother present, then leave him alone for gradually longer periods of time. Each new step is taken after he has adjusted to the previous one.

SUMMARY

Providing home care and management of the retarded child is one effective means of offering service to the family and the young child. This involves early diagnosis of the children by physicians with immediate referral to the service if this is the chosen treatment. Planning the program involves a comprehensive look at the total family and environmental situation and includes the use of any information available from professionals who have had previous contact with the family. A skill assessment battery and a guideline for assessing the home environment have been outlined in detail in order to provide one a means of assessing the situation so as to discover outstanding needs of the child and the family. Planning includes a discussion of the needs and a program outline which will meet some of these needs. Methods of designing and progressing programs have been discussed in light of activities, equipment and techniques which have been proven useful.

Four sample programs are included to illustrate the application of the outlined material.

The appendices include:

I Samples of completed assessment and treatment forms.

II The rating scale as applied to several specific activities.

III More examples of home programs designed for children using the outlined principles, methods and techniques. The programs are arranged according to chronological age and cover up to 12 years of age.

It is hoped that this material will prove useful as a reference for persons intending to use the assessment procedure and/or planning to provide home programs for mentally retarded children and their families.

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APPENDIX I

Sample Completed
Scoring and Treatment Forms

BASIC SKILLS ASSESSMENT
Page 1

DATE THERAPIST

DIAGNOSIS Down's Syndrome, C.P. Spastic DOCTOR

REASON FOR ASSESSMENT Home Program

VISION Sees 1/4 inch pellet

HEARING Hears

TACTILE a) deep touch Not tested. b) light touch Not tested.

c) extinction Not tested. d) reaction to stimuli Defensive withdrawal

MUSCLE TONE Hypotonic-lower more than upper MUSCLE STRENGTH weak lower-normal upper

RANGE OF MOTION (active & passive) Normal active movement - inclined to hyper.

NEUROLOGICAL ACTIVITY Moro reflex when startled. If abnormal record on separate sheet

REFLEX LEVEL Appears appropriate to level of functioning.

BALANCE Adequate in 4 point kneeling, poor in 2 point kneeling.

CROSSING MIDLINE Not able to.

DOMINANCE Left. AGREEMENT Not tested

FINE MOTOR CONTROL Adequate for level of functioning (1 year)

GROSS MOTOR CONTROL Adequate for level of functioning (9 months)

PLAY Solitary, does not initiate on his own, has to be stimulated and directed.

LANGUAGE Comprehends short commands. Can say "no," and "I don't want to," but does not do so in any setting except nursery. INDEPENDENCE Completely dependent.

IMPRESSIONS: This child was not performing at his level of ability in this assessment as opposed to his teacher's report of performance in school. He is afraid of new situations, new people, and can perform many activities in a familiar environment which has appropriate stimulation and expectations, but is unable to transfer this to the home or the unfamiliar test situation. His motivation is low, probably due to lack of success and years of living when no expectations were placed upon him.

SUMMARY: This is a 12 year old boy functioning between 9 months and 2 years who has Down's Syndrome and Cerebral Palsy. He is hypotonic, anxious and fearful in new environments.

PERCEPTUAL MOTOR SKILLS: Generally functioning below 1 year. Can follow vertical and horizontal pattern with eyes when held close to him. Probably can differentiate large from small and basic shapes, but would not. Probably aware of up, down, in front, behind, but not tested due to his lack of response. Also, probably able to point to parts of body and familiar objects when named, but not attempted due to lack of response.

FINE MOTOR SKILLS: Accomplishes all items at 9 month level and 3 out of 5 items at one year level. Probably capable of performing into the 18 month level, but was not able to in this assessment due to fear and anxiety over new person and place.

GROSS MOTOR SKILLS: Accomplishes all items at the 6 month level and 4 out of 6 at the 9 month level. Is starting to pull self to kneel standing, but fearful and unsteady. Crawls, but has just started and needs to be motivated.

ACTIVITIES OF DAILY LIVING SKILLS: Accomplishes items between 9 months and 2 years. Dressing skills at highest level. Co-operates - removes socks and shoes. Not toilet trained. Can feed himself strained food with a spoon at the nursery, but will not at home. Does not chew. Drinks from a glass with assistance of guiding glass to mouth and helping him hold it.

BEHAVIORAL SKILLS: Poorly motivated child with low frustration tolerance who reacts by crying, saying "no" and hitting himself on the mouth or nose with his wrist. Can separate from parent in familiar situations, but not unfamiliar. He is hypoactive and reacts to changes with anxiety which prevents him from functioning at the level he is capable of. Responds with affection to mother, but still pulls her hair. He responded to therapist by withdrawal.

He mobilizes affect, but does not channel it appropriately and was overly fearful and anxious in new situations. Mother appears to be unable to say "no" or express disapproval of child's behavior. She also becomes very upset when he is frustrated. She appears to be very willing to help child, but needs support and suggestions how to channel this desire to help into appropriate rather than over solicitious behavior.

RECOMMENDATIONS: Home program co-ordinated with nursery program. Mother will need considerable help learning to accept the fact that learning involves some amount of pain and unpleasantness on the part of the child. Also that he will

RECOMMENDATIONS (continued)

not be destroyed by her disapproval and that she can expect a certain amount from him. This would probably be best achieved in a visit to the nursery arranged say 1/2 hour three times a week when child is taken individually with the mother and the therapist works with the child, demonstrating and interpreting the above recommendations. Activities would be geared to improving perceptual-motor functioning and work habits and to stimulating fine and gross motor development. Mother would probably be able to be more successful with these activities in the home than the feeding. Work into feeding when mother can work successfully at home with child. Recommend that mother work with child for 3 to 5 minute periods a day, preferably at a regular time each day.

CTIVITY	DATE 1 1 Feb. 17		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	F					
2	F					
3	A	Apparently can if follows with his own hand and wand. 6-3				
4	A	ditto				
10	B-C	some interest and with great deal of physical assistance				
18	B-C	ditto				
38		To be tested.				
46		ditto				
47		ditto				
48		ditto				
49		ditto				
57		ditto				
71		ditto				

FINE MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	F					
2	F					
3	F					
4	F					
5	F					
6	F					
7	F					
8	F					
9	F					
10	C					
11	F					
12	C					
13	C					
14	B					
15	C	Big pegs (long), small hole in nursery				
16		To be tested.				
17		To be tested.				

GROSS MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	F					
2	F					
3	F					
4	F					
5	F					
6	F					
7	F					
8	F					
9	F					
10	F					
11	F					
12	F					
13	F					
14	F					
15	F					
16	F					
17	F					
18	F					
19	F					
20	C	With physical assistance not want to bear wt. on legs				
21	E	Can do, but had to be encouraged by mother				
22	E	Had to be encouraged by mother				
23	F					
24	E	Can do, but won't in in new environment				
25	C	Very fearful				
26	A					
27	A					
28	A					
29	A					
30	A					

ACTIVITIES OF DAILY LIVING

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	E					
2	E					
3	E					
4	E					
19	C					
20	C					
21	A					
37	C					
38	A					
47	C					

ACTIVITIES OF DAILY LIVING

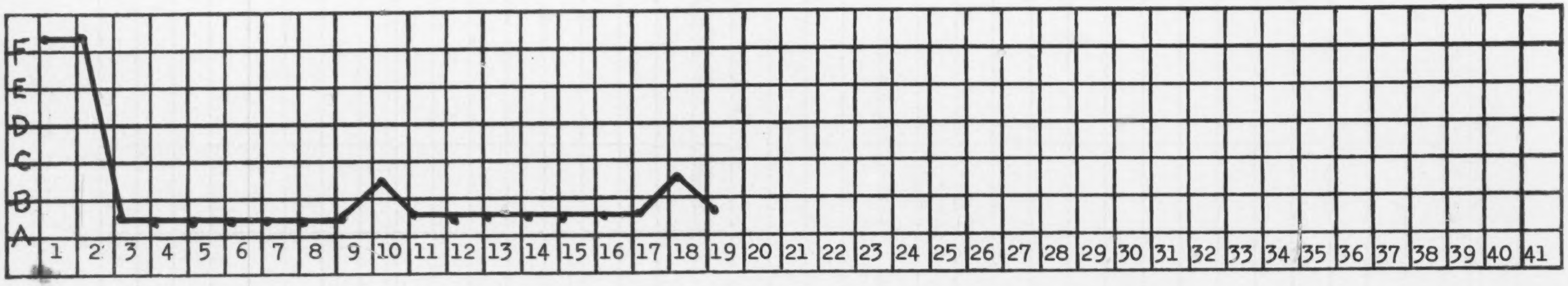
ACTIVITY NO.	DATE 1		DATE 2		DATE 3	
	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

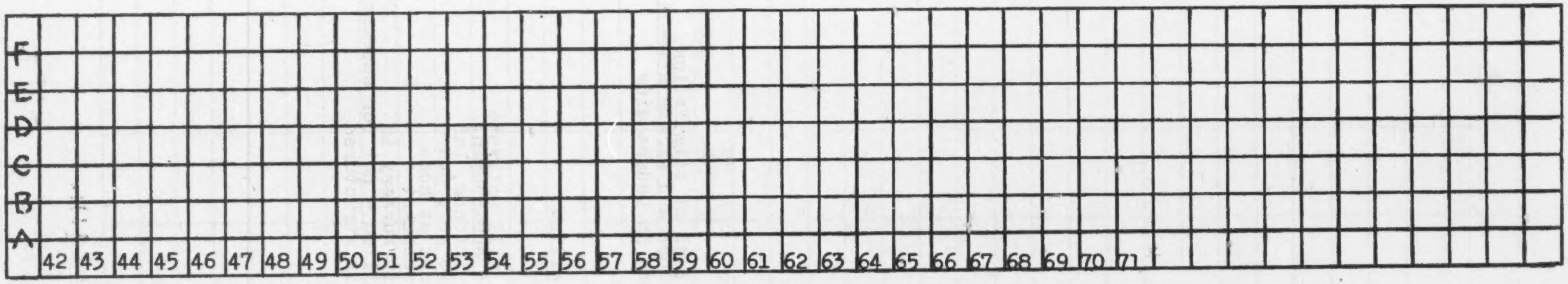
BEHAVIOUR

CTIVITY NO.	DATE 1		DATE 2		DATE 3	
	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	C	Needs great deal of stimulation, responds to loud and excess stimuli				
2	C	Tolerates some in undemanding environment				
3	C					
4	E	in familiar milieu				
5	A					
6	C	hypoactive - will activate in structured environment				
7	B	occasionally attends, but no appropriate response				
8	C	in nursery, not at home or during assessment				
11	C	appropriate in nursery in structured milieu - not for assessment				
13	C	in nursery, in structured milieu				

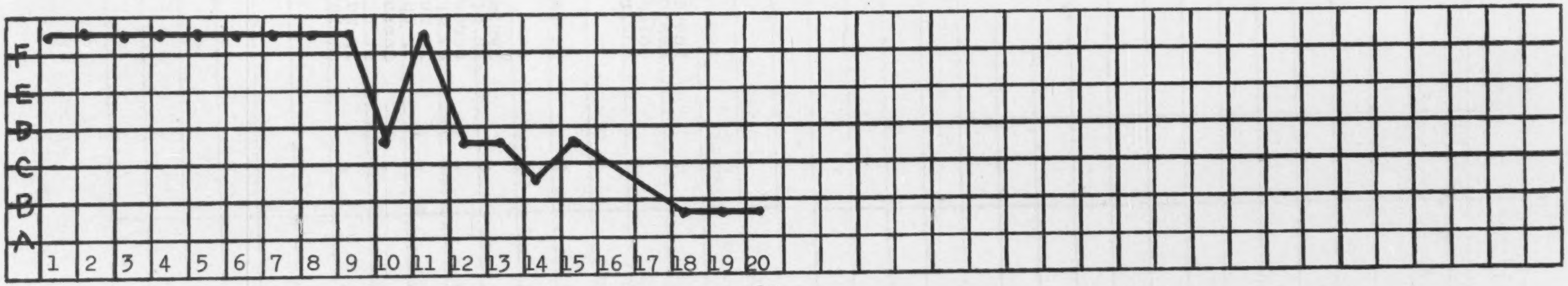
SKILL PROFILE

PERCEPTUAL MOTOR SKILLS

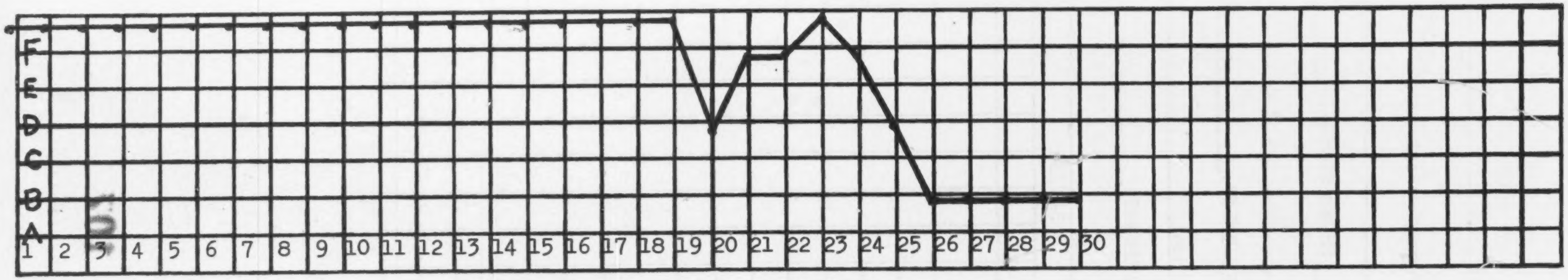




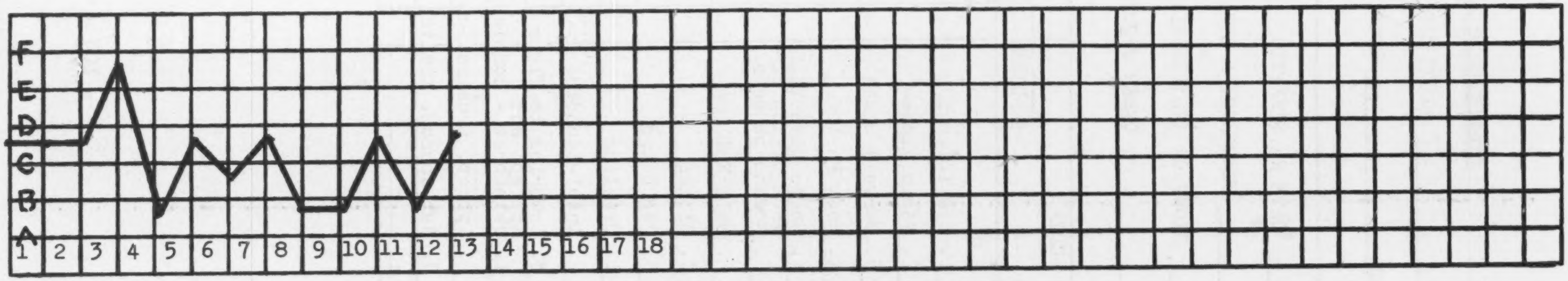
FINE MOTOR SKILLS



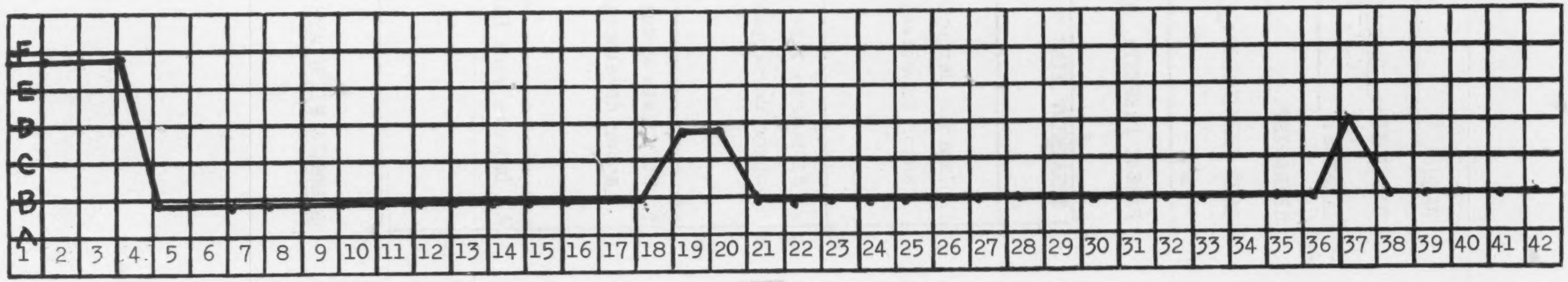
GROSS MOTOR SKILLS



BEHAVIOR



ACTIVITIES OF DAILY LIVING



TREATMENT PROFILE

NAME:__________ BIRTH DATE:__________ CHART NO:_____

DIAGNOSIS: Down's Syndrome
C.P. Spastic
PRECAUTIONS:__________

ADDRESS:__________ PHONE NUMBER:__________

THERAPIST:__________ DATE Rx STARTED:__________

DATE TERMINATED:__________ FREQUENCY & LENGTH OF TREATMENT: 3 times per week
1/2 hour

__________ GROUP OR INDIVIDUAL: Individual

PARENT PRESENT: Yes OTHER DISCIPLINES PRESENT:__________

TREATMENT AIMS	MEDIA	RATING												
	DATE:													
1. Improve perceptual-motor functioning	1. Eye following													
	2. Basic Shapes													
	3. Large & Small													
	4. Body Parts													
2. Stimulate fine motor development	5. Space Directions													
	6. Recognition of common objects													
	1. Ball Rolling													
	2. Blocks													
3. Stimulate gross motor development	3. Peg Board													
	1. Crawling													
	2. Kneel-Standing													
	3. Lowering to Floor													
4. Improve work habits	1. Approp. and reinforce - consistent													
	2. Approp. frustration													
	3. Set approp. limits													
	4.													

COMMENTS WITH DATE:

BASIC SKILLS ASSESSMENT
Page 1

DATE February 26, 1969.

THERAPIST

DIAGNOSIS Down's Syndrome

DOCTOR

REASON FOR ASSESSMENT

VISION appears normal

HEARING appears normal except for slight hearing loss due to cold

TACTILE a) deep touch normal

b) light touch normal

c) extinction (not tested)

d) reaction to stimuli normal

MUSCLE TONE good

MUSCLE STRENGTH good

RANGE OF MOTION (active & passive) not restricted

NEUROLOGICAL ACTIVITY not tested

If abnormal record on separate sheet

REFLEX LEVEL not tested

BALANCE very good

CROSSING MIDLINE sporatic attempts to cross midline

DOMINANCE not established

AGREEMENT

FINE MOTOR CONTROL appropriate to level of functioning

GROSS MOTOR CONTROL appropriate to level of functioning

PLAY Plays at approximately 3½ years level.

LANGUAGE Uses phrases articulation poor

INDEPENDENCE appropriate for level of functioning 3-4 years.

BASIC SKILLS ASSESSMENT

Page 2.

IMPRESSIONS: This is a 4½ year old Down's Syndrome child who is well cared for and loved in the home. The child, who is a happy little one, is well disciplined. She attends nursery school, has taken gym classes for two years and is encouraged to develop fine and gross motor skills. She is in good physical health. The child has good fine and gross motor control, is well motivated and is interested in her environment. She has a good vocabulary but does not speak clearly: Uses phrases but not sentences.

SUMMARY:

PERCEPTUAL MOTOR SKILLS: Appears to have good eye sight and hearing. Can match glometric shapes. Has very little, if any, awareness of size sequence. Can match colors but cannot name them. Has good body image and is aware of position in space. Understands concept up to 4, day and night, and can name familiar objects. Appears to be functioning at 3½ year level.

FINE MOTOR SKILLS:

Functioning at approximately 3½ year level.

GROSS MOTOR SKILLS:

Functioning at approximately 3½ year level generally but makes appropriate use of ice-skates, sled and wagon and skiis at about 5 year level.

ACTIVITIES OF DAILY LIVING SKILLS:

Dressing - 4 year level
Feeding - 4 year level
Toilet Grooming - 4½ year level
Play - 3½ year level.

BEHAVIORAL SKILLS:

Approximate behavioral skills for 3½ to 4½ year old.

OTHER:

Areas in which this child needs special help are (a) color and size discrimination (b) use of crayons to reproduce shapes.

RECOMMENDATIONS:

It is recommended that this child continue with present programs. Suggestions will be given to nursery school and parents as to how they can assist child in areas mentioned above.

PERCEPTUAL MOTOR SKILLS

ACTIVITY NO.	DATE 1 February 26, 1969		DATE 2		DATE 3	
	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	F					
2	F					
3	C^1	mother held head				
4	C^1	mother held head				
5	C^1	mother held head				
6	C^1	mother held head				
7	C^1	mother held head				
8	C^1	mother held head				
9	C^1	mother held head				
10	F					
11	F					
12	D^1					
13	D^1					
14	E					
15	C^2	held crayon				
16	--	not tested				
17	--	not tested				
18	C^2					
19	C^2					
20	C^2-C^1					
21	--	not tested				
22	--	not tested				
23	D^2-4					
24	D^2-4					
25	B^{11}					
26	--	not tested				
27	--	--				
28	--	--				
29	--	not tested				
30	C^{1}-^{3}	(8 piece puzzle)				
31	B^{11}	32 and 33 not tested				
34	--	not tested				
35	--	not tested				
36	F					
37	D^3					

PERCEPTUAL MOTOR SKILLS

ACTIVITY NO.	DATE 1		DATE 2		DATE 3	
	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
38	F					
39	--	not tested				
40	--	not tested				
41	D^1					
42	C^2					
43	C	child was aware of expressions shown				
44	C^1					
45	C					
46	F					
47	F					
48	D^2					
49	D^2					
50	D^2					
51	C^2					
52	D^{2-4}					
53	B^1					
54	B^1					
55	--	not tested				
56	--	not tested				
57	--	not tested				
58	--	not tested				
59	--	not tested				
60	--	not tested				
61	--	not tested				
62	C^{3-5}	(at home, small ball)				
63	F					
64	C^{3-5}	(at home, with blocks)				
65	C^{3-5}	(at home, with blocks)				
66	D					
67	--	not tested				
68	B					
69	C	child has basic concept of time				
70	--	not tested				
71	C					
72	C					
73	--	not tested				

FINE MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1-34	F					
35	C^{1-2}					
36	--	not tested				
37	B					
38	F					
39	A					
40	A					
41	A					
42	C^{1}					
3-50	--	not tested				

GROSS MOTOR SKILLS

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1-47	F					
48	D					
49	--	not tested				
50	F					
51	E					
52	E					
53	F					
54	D					
55	D					
56	B					
57	A					
58-67	--	not tested				
68	C					
69	--	not tested				
70	--	not tested				

ACTIVITIES OF DAILY LIVING

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1-14	F					
15	-					
16	B					
17	A					
18	C$^{1\&2}$					
19-27	F					
28	C					
29-33	F					
37-40	F					
41	D					
42	D					
43	F					
44	F					
45	C					
46	C					
47-49	F					
50	D					

BEHAVIOUR

CTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

ACTIVITIES OF DAILY LIVING

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS

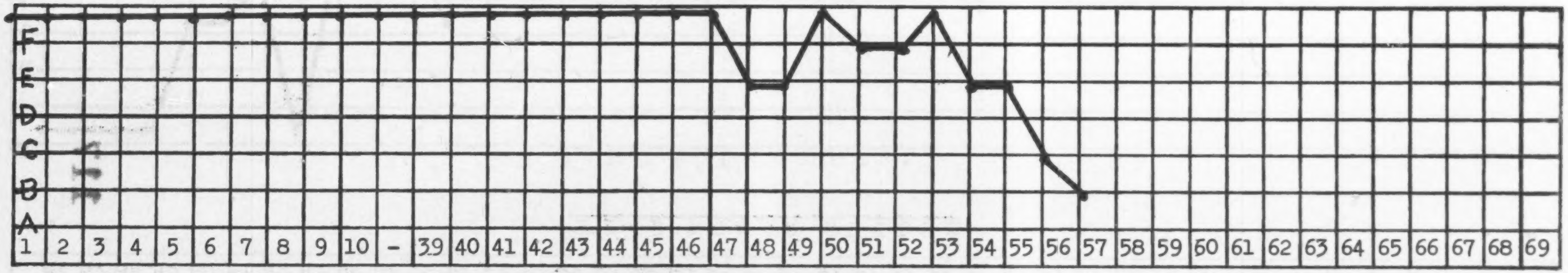
BEHAVIOUR

ACTIVITY	DATE 1		DATE 2		DATE 3	
NO.	RATING	COMMENTS	RATING	COMMENTS	RATING	COMMENTS
1	F					
2	F					
3	F					
4	F					
5	F					
6	F					
7	F					
8	F					
9	F					
10	F					
11	F					
12	F					
13	F					

GROSS MOTOR SKILLS

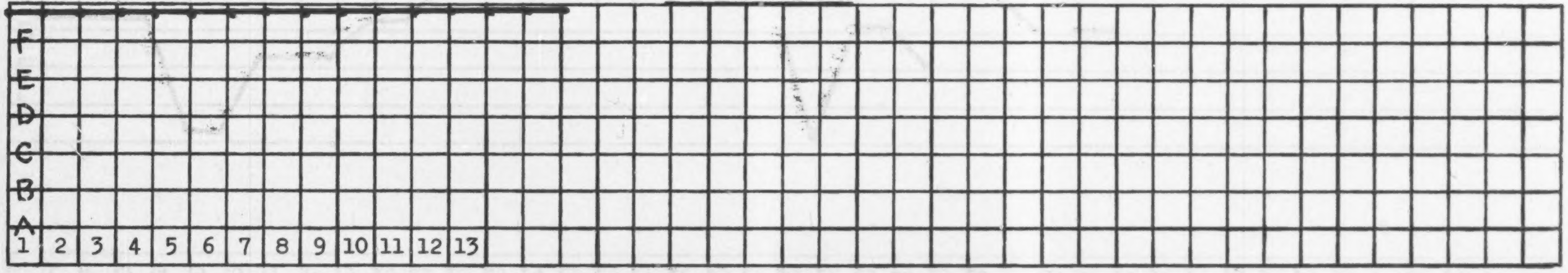
SKILL PROFILE

GROSS MOTOR SKILLS



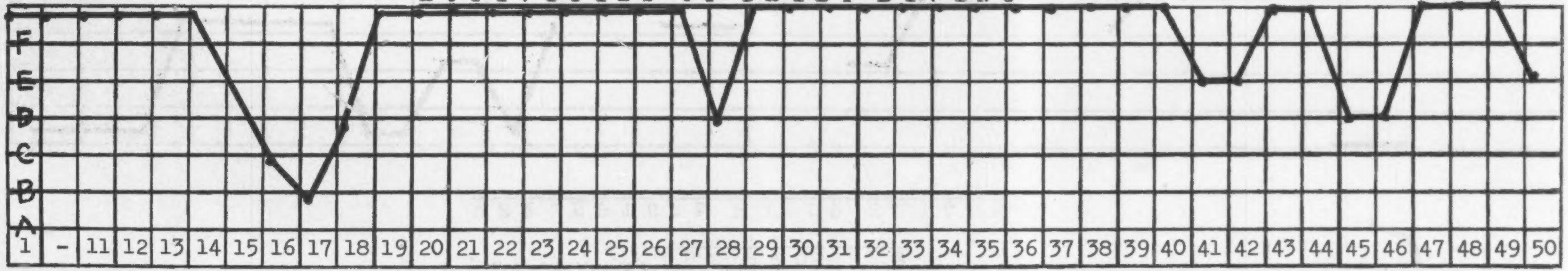
BEHAVIOR

BEHAVIOR



ACTIVITIES OF DAILY LIVING

ACTIVITIES OF DAILY LIVING

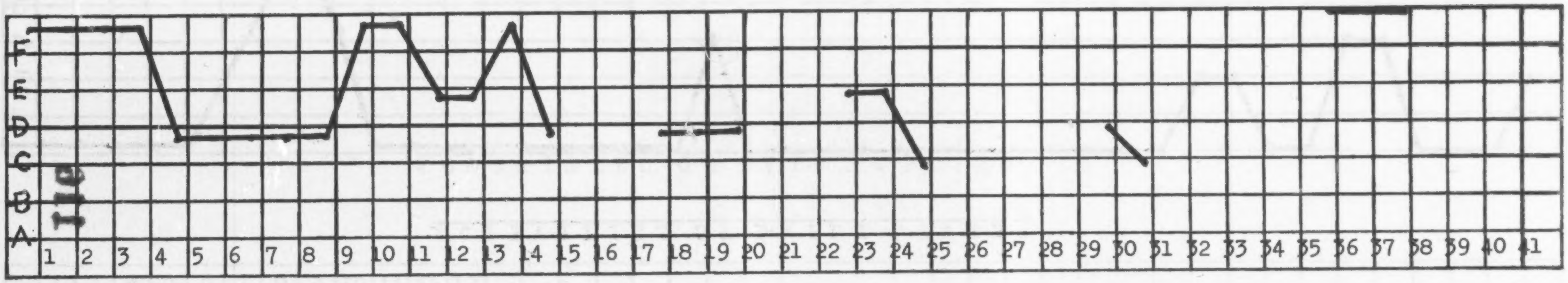


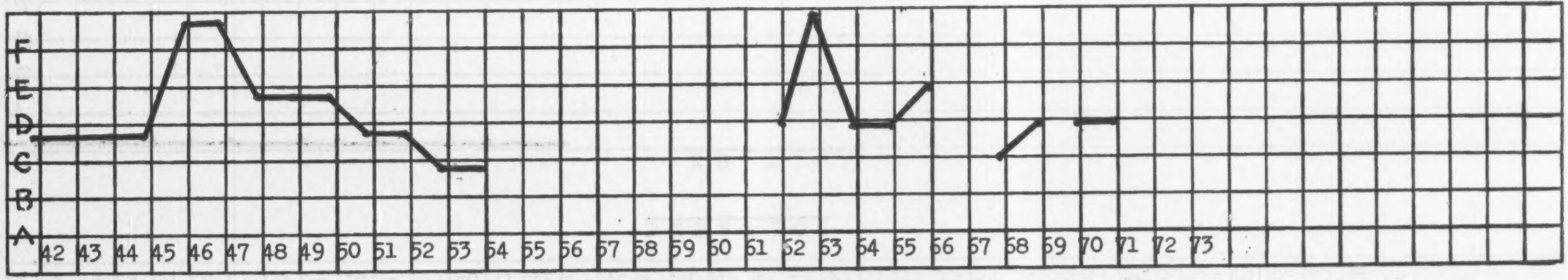
SKILL PROFILE

PERCEPTUAL MOTOR SKILLS

SKILL PROFILE

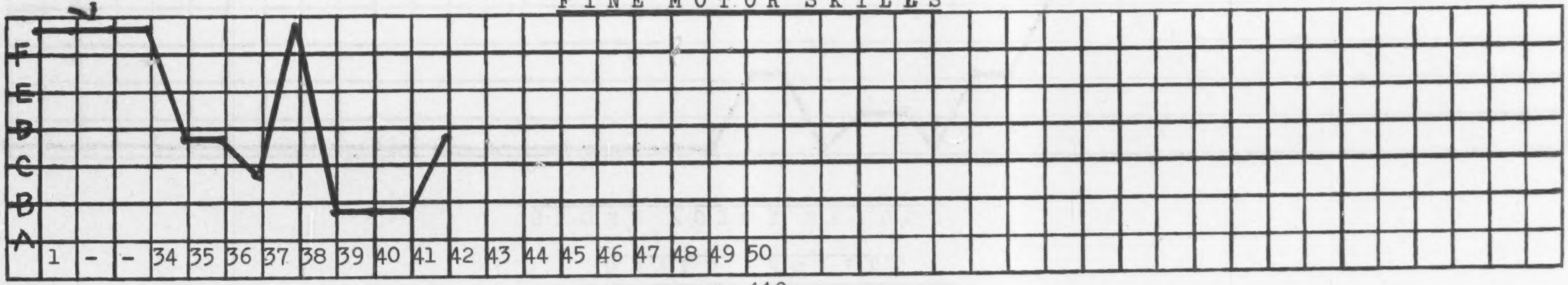
PERCEPTUAL MOTOR SKILLS





FINE MOTOR SKILLS

FINE MOTOR SKILLS



TREATMENT PROFILE

NAME: ______________ BIRTH DATE: ______________ CHART NO: ______________

DIAGNOSIS: Down's Syndrome PRECAUTIONS: ______________

ADDRESS: 25 Sutton Blvd., Toronto 123, Ontario. PHONE NUMBER: 123-4567

THERAPIST: ______________ DATE Rx STARTED: ______________

DATE TERMINATED: ______________ FREQUENCY & LENGTH OF TREATMENT: ______________

______________ GROUP OR INDIVIDUAL: individual

PARENT PRESENT: mother OTHER DISCIPLINES PRESENT: ______________

TREATMENT AIMS	MEDIA	RATING													
	DATE:														
1. Perceptual Motor Skills	1. 4-8 lrg. piece puzzle														
	2. ply board														
	3. stacking cups														
	4. books														
2. Fine Motor Skills	1. scissors & paper														
	2. crayons & paper														
	3.														
	4.														
3. Activities of Daily Living	1. dressing														
	2.														
	3.														
	4.														
4.	1.														
	2.														
	3.														
	4.														

COMMENTS WITH DATE: These items could be carried out at the nursery school at times most suitable to the teachers. At home, the mother or the older brother and sisters could take turns in directing her. A suitable time may be following the evening meal for approximately 20 minutes each day. Specific directions on separate sheet. Whenever possible, allow her to dress herself. Reward her with praise or a hug for doing a good job. Use toys suggested only at times when she is being supervised closely.

APPENDIX II

Performance Rating Scale applied to some Assessment Items

PERFORMANCE RATING SCALE

EXAMPLES OF PERFORMANCE AND BEHAVIOR

A. No: refusal to attempt activity even after demonstration and offers of help.

- physically incapable of doing activity
- unable to comprehend activity
- cannot be motivated to attempt activity

B. Attention: intermittant.

- tester is demonstrating ball rolling. Child pays attention to what he himself is doing now and then.
- tester has another child demonstrate putting a coat on. Child watches last part of demonstration or child watches initially and then looks away.

Attention: focused.

- child watches activity, but does not try.
- child watches and tries, but cannot do it even with help.

C. Physical assistance: physical contact with child.

- stabilization of part of the body; for example, stabilizing trunk enables child to kneel, stabilizing hips enables child to stand, holding child's head enables him to follow with his eyes.
- passively moving child through movements of an activity enables performance; for example, riding a bicycle, walking, throwing a ball overhand, climbing stairs, sitting up, rolling over, drawing a line downward.
- restraining child's hand enables him to complete activity; for example, it prevents him from throwing objects or destroying work or hitting another child.
- reflex inhibiting positions allow child to perform desired activity; for example, inhibiting asymmetrical tonic neck reflex enables child to bring his hand to his mouth.
- icing and brushing child enables him to attend adequately and succeed in activity.

Physical assistance: physical contact with media.

- helping child to hold crayon enables child to draw a line
- holding the paper enables child to cut with scissors.
- presenting one part of activity at a time enables child to do the activity; for example, stacking rings. The child is given only two pieces at a time to choose from in order to pick correct size and put on ring.
- steering bicycle allows child to pedal.
- demonstration of what is to be done allows child to perceive activity.

Physical assistance: modification of environment.

- providing a structured, non-stimulating environment allows child to perform.
- emphasis of relevant stimuli enables child to attend relevant aspects of activity and be successful.
- use of operant conditioning techniques enables child to perform; positive reinforcement for each step of activity completed successfully such as candy or a pat on the back.
- provision of supportive, non-threatening, non-frustrating environment where no failure will be experienced enables child to complete activities successfully.
- using the cerebral palsy kindergarten chair in place of normal chair enables child to perform table activities.
- allowing child to stand instead of sit to do activities enables him to perform.
- planning environment so that activities which you wish the child to do are present, but child is allowed free use of activities therefore enabling him to perform.
- seeing child along, rather than in a group, allows him to perform successfully.

Physical assistance: modification of relationship.

- eliminating frustration by anticipating any difficulties the child may have enables him to perform successfully.
- being very quiet, calm and organized enables child to perform adequately.
- not setting limits on inappropriate behavior for a specific reason; for example, phase typical behavior of two year old.
- very firm consistent limits with no leeway helps child stay within limits of situation and perform successfully.
- child can do activities for mother or some familiar person, but not for tester.

Physical assistance: modification of media.

- adapted spoons or forks or knives allow child to eat independently.
- adapted seat allows child to sit appropriately.
- straps and back extension on chair provide head control for child so he can see activities and use his hands to play or feed.
- with large beads and stiff string, child can thread beads.
- large pegs and holes enable child to do peg board.
- slow-moving pendulum enables child to follow with his eyes.
- straps on pedals to hold feet allow child to ride bicycle.
- walker allows child to stand or walk.
- two pieces of eight piece puzzle are presented at a time. This enables child to do puzzle.
- change of activities improves child's total behavior response to overall situation; for example, the child won't try table activities, but will do gross motor activities, or child will do gross motor activities requiring equipment, but not those requiring imitation.
- demonstrate task step by step; for example, painting. Put paper on table, put paint beside paper, put water beside paper, put brush in paint, mark on the paper.
- simplify activity by eliminating number of steps or amount required of child; for example, you hold bead and he puts thread in the hole.

D. Verbal direction: simple instructions.

- puzzle: look, dump, turn over pieces, put this in, put that in, finally put this in.
- ball throwing: look, throw here, swing, turn back, let go of ball.
- eye following: look, look, look, etc.
- matching colors: make one like this, another red one, another red one, another red one, etc.
- putting on pullover: find arm holes, put arms in, both arms, find neck, put head in, pull down, all the way to pants.

Verbal direction: complex instructions.

- putting on socks: put foot into top, push foot right to the toe of the sock, straighten sock at the heel, pull up tight.
- puzzle: dump pieces out and put back in.

Verbal direction: positive reinforcement.
- taking off pants: very good, a little bit more, very good, that's right.

Verbal direction: negative reinforcement.
- copying a square: no, not that way; no, not that way; no, try again. Say, "No, not that way," each time the child moves pencil in the wrong direction.

E. Independent in familiar situations.

- child can dress himself at home, but cannot dress himself when assessed at hospital.
- child can sort by size using round stacking rings he has played with, but not using square stacking pieces which are new to him.

F. Independent: environment.

- child can dress himself at home, at school or hospital.
- child is toilet trained at home, school or visiting.
- child can follow limits of environment at home, at friends' houses, or shopping at stores. He can follow limits whether supervised by an adult or not.

Independent: media.
- child can sort by size, using any toy requiring him to do so.
- child can wash his own face or that of a doll or another child.
- child can name days of the week in or out of order as requested.
- child can count anything to ten; ten fingers, ten buttons, or ten different colors.

APPENDIX III

Sample Home Programs

The following programs are samples of those which have been used. They may be used as examples or guidelines for any program you may wish to establish.

The first paragraph on each page is a very brief resume of the assessment results to aid your understanding of the program which follows. They are not included in the programs presented to the parents.

G.M.S. stands for 'gross motor skills'

F.M.S. stands for 'fine motor skills'

A.D.L. stands for 'activities of daily living'

Some of the programs include progressions of treatment suggested in families' follow-up visits. The programs are included as they were originally designed, with instructions for doing activities in varying detail according to the needs of the parent, instructions for placement of the child, when to contact the hospital and where to buy the toys. They are included as actual examples of programs sent to parents, indicating the detail necessary when writing up a program. Naturally, specifics, as where to buy toys, would be modified to suit each setting.

Boy's age - 19 months

G.M.S. - 6 - 9 months

F.M.S. - 12 months

A.D.L. - 12 months

Behaviour - pleasant co-operative

These are the activities suggested to you at the hospital. I hope you will find them satisfactory. You will be contacted again in two to three months for another hospital appointment. (This being a letter addressed to the boy's mother).

1. Plastic milk bottle with spools and plastic clothes pegs in it - empty bottle and drop objects back into it.

2. Large Peg Board - can be made if possible as they are very hard to find commercially.

3. Busy Box - can be purchased at Fry's Toy and Stationery Store on Sherbrooke St. West near Victoria Avenue.

4. Stacking Caps.

5. Little Ball - Sit on floor and roll ball back and forth, or encourage child to chase the ball.

6. Blocks - Bang the blocks together, or place one on top of the other.

7. Pivot Position - Encourage child to lie on his stomach to play or watch T.V., or to lie on a beach ball, or his large stuffed dog.

8. Walker - Use for limited periods of time.

9. Paper and Crayons - Encourage child to scribble on the paper.

PROGRESSION OF ACTIVITIES GIVEN IN SECOND VISIT - 4 months later.

Following are the list of suggested new activities for your son. If there are any questions or they are no longer appropriate, please contact me at the hospital.

1. Record - March or waltz - no words.
   - Sit on floor with you and touch head, eyes, nose, mouth, legs, arms, hands or feet as directed by you or another adult.

2. Sound Stimulation - Loud - soft, high - low. Use big and small bells for loud and soft or bang sticks. Use xylaphone or piano, or compare bell and stick for high and low.

3. Crawling - Make a small obstacle course with tables and chairs or boxes. Have the child crawl over, under or around it.

4. Water Play Pour from one container to another - or squeeze out of plastic bottle (best done in bath tub).

5. Book - Large colourful pictures of familiar objects. Cut out pictures of words he already knows from magazines to make a scrap book (e.g. picture of daddy, mummy and his sister).

6. Bubbles - You blow, let him watch them. - Also you catch them and let him break them with his finger.

ACTIVITIES SUGGESTED IN THIRD VISIT - 5 months later.

Child now climbing and cruising, imitative behaviour starting, starting toilet training, eating well with cup and spoon, speaking more.

1. Eating - use a fork - stab vegetables such as small beans or peas, or pieces of meat.

2. Picture Book - include pictures of food - when you have the picture, show him the real object and the picture and say the word, encourage him to do so now.

3. Large Toys - to push around.

4. Plastic tricycle - sit on and push out feet on floor.

5. When he is standing, encourage him to let go for a minute - put something on table or chair he likes and would reach for.

6. Encourage imitative play - with toys for cleaning and a cupboard and dishes of his own.

7. Put the toys used for teaching in a box and only bring them out when he is having a lesson. Put these toys into general circulation after he has learned them well. Keep his other toys in a box also; put out 3 - 5 toys for daily use. Change these toys every 2 - 3 weeks.

Girl's age - 2½ years

G.M.S. - 18 months

F.M.S. - 18 months

A.D.L. - 12 - 18 months, non-verbal

Behaviour - Slightly hyperactive, short attention span

The following are suggested activities for your daughter to be done in the home. It is preferable to try to work regularly with her for a certain period of time each day. A small table and chair is preferable for table activities.

Toys may be purchased at a small local toy shop or from any of the following places:

Fry's Toys and Stationery on Sherbrooke near Victoria.
La Boutique, 5591 Cote des Neiges.
Ye Olde Toys Shop, Beaconsfield Shopping Centre.
Brault and Bouthillier Ltd., 205 Laurier East, Montreal.

1. Busy Box.

2. Plastic Milk Bottle - dump the things out, encourage her to put them in.

3. Graded Ring and Stick - hand her the rings in order and she puts them on.

4. Stacking Cups - can be used to pile one on top of each other or place inside of each other - again hand them to her in order.

5. Pop-it Beads - push together, pull apart, hold her hands to help her do it if she has difficulty.

6. House that Jack Built - Help her to put the correct shaped blocks onto the correct holes.

7. Hammer and Pegs - Hammer pegs down.

8. Co-ordination Board - Place right shape into its hole. Show her which hole to place it into then let her place it. After she has learned this, let her try to put them in correctly by herself.

9. Single Inset Puzzle - Puzzles of familiar objects are the best - use same method as above.

10. Blocks - building towers, houses, etc...Show her first then let her try. Help her as much as is needed.

11. Peg Board - placing pegs randomly into the board.

12. Buttoning - Let her try buttoning your coat - help her as much as needed. You can also make a button board of two pieces of cloth that are joined by buttons or place a large button and hole on apron straps. Start with button hole which is very big for the button.

13. Removing clothing - sweater, blouse, dresses, skirts. If she is to remove things over her head, the neck must be very loose and she must take her arms out first; undo all fastenings for her. Then let her try to do it herself. Touch the arm she is to pull out and show her how she must move it, then let her try.

    She may also enjoy taking large clothing off a doll.

14. Gross Motor Activities:

    a) Ball play - rolling and catching.
    Kicking - lean against wall then let her kick or hold her hand and let her try.

    b) Stairs - practice going up and down stairs - let her hold the rail and your hand.

    c) Music - tapping sticks
    - clapping hands
    - tapping parts of body
    - running.

15. Paper and Crayon: Encourage her to scribble with a crayon both circular and linear. Guide her hand if she cannot copy you.

continued

Several items have been suggested and I have included some which I did not mention in your visit to the hospital. Use as many of the activities at one time as your daughter and yourself are comfortable with. Add new activities as she masters the old ones but keep repeating the old ones, as repeated success experiences are very important.

PROGRESSION OF ACTIVITIES

Child seen 4 months after initial list given to parents. Little work had been done with the child over the summer months.

1. Continue with the same activities.
2. Try cutting with scissors - use two hands. Hold the paper; say: open, shut, open, shut as she tries to cut. When she can cut with two hands, start trying to do it with one hand.
3. Pasting - pictures or cut paper onto large paper to make a design.
4. Scrap Book - make a scrap book of familiar objects and words that your child already knows. She can paste them in; you cut them out after both of you have found them in an old magazine or story book.
5. Start guiding her hand to make strokes down the page one after another then let her try it. Do the same for strokes across the page.
6. Village Peg Board - many pieces to fit into pegs, make house and trees.
7. Beads to Thread - large beads, put wood on end of thread to make it stiff.
8. Imitate Paper Folding - pretend to wrap up a pencil, crayon or candy.

Girl's Age - 3 years 3 months

G.M.S. - 3 years

F.M.S. - 2-3 years

Perception - 3 years

A.D.L. - Age appropriate

Behaviour - Shy, dependent

These are suggested activities for your daughter to work on at home. It would be best if she had a certain time each day when she sat down to work on these activities at a small table and chair.

1. Pencil and Crayon Work - Encourage her to imitate circles, vertical and horizontal lines. If she has difficulty imitating, make the circle, etc., and guide her hand and aim to make the form several times, then let her try it. After she has learned this well go on to crosses, squares and triangles.

2. Drawing - Encourage her to fill in the whole page; paints would be fun to try as well as crayons. Encourage her to talk about her drawing and show her how she can make the forms that she knows (circles and lines) into a picture, abstract or real.

3. Naming Colours - Can use a peg board or cut out squares of cardboard to match, sort and name - e.g. 5 red; 5 blue; 5 green; 5 yellow and 5 orange squares. You can play cards with them; game requires you to match the card the other person puts down, or draw another card from the pile - deal five cards each. Talk about colours as you play.

4. Numbers - Counting pegs or sticks or buttons concentrate on the difference between one and many, one versus two, then go on to one, two, three. Progress to next number as she knows the one before it. One good way of doing numbers is to lay out three buttons and then have her do the same, or put one peg in a board and have her do the same.

5. Cutting and Pasting - She can now snip with scissors. She can use this to make fringe that can be used as grass in a picture of hers, or can be pasted on to a paper for a fun design. Use narrow strips of paper, 3" wide. After snipping she can try to cut right across the strip of paper, the width of which will gradually be increased. After this she can learn to cut on a straight line followed by a curved line.

If there are any questions, please call me at the hospital. If not, I will contact you in two or three months' time..

PROGRESSION OF ACTIVITIES - 5 months later.

Age - 3 years 9 months

I have included a list of activities that can be used with the previous list that was sent to you for your daughter. I hope they will be useful. Please contact me at the hospital if you need any further suggestions.

1. Outdoor Activities

   a) Swimming.
   b) Park - swings, slides, playing in sand, rolling on grass or down hills, walking concrete curbs which enclose sandbox or garden area, climbing on monkey bars.

2. Indoor Activities

   a) Music - marching, jumping, hopping, clapping, touching body parts or imitating activities of animals or domestic activities like sweeping or making beds.

   Or musical games like: Ring around the Rosey
   Farmer in the dell
   Pop goes the weasel
   Loopity Loo.

There are several children's records available commercially that include these activities and games and many others.

   b) Games involving learning about body and about space around body e.g. watching yourself move in front of a mirror, Simon says touch your head, or put your hands up, or down or in front or behind, obstacle courses involving going under, over and around things.

3. Reading Readiness Activities

   a) Puzzles.
   b) Story books - about things and situations familiar to her.
   c) Make a scrap book to learn about likeness and differences, e.g. cut pictures of different kinds of girls out of a magazine; She pastes these onto a large piece of paper. You talk with her about them all being girls, but that some are Negro or Indian or some have red dress or blue dress or some are standing or sitting. Make several pages of familiar objects.

Boy's Age - 3 years 5 months

12 month level when 33 months

These activities are to be presented to your son each day at the same time in the same place for one half-hour. Do the activity first, then encourage him to try. Continue to present the activities even when he does not try, in order to give him more encouragement; vary the activities, that is, do some sitting down, then some standing up. During the day when he is playing with or looking for a chair, try to interest him in some activity or toy.

1. Ball - rolling
2. Blocks a) Pile in and out of containers.
   b) Pile one on top of the other.
   c) Bang together to music.
3. Large Peg Board - lift pegs out, put back into holes.
4. Book - Turn pages, point to and name objects - pictures of familiar objects, etc.
5. Hammer and Peg. Encourage to hammer at pegs.
6. Stairs - Practice going up and down - hold his hand - start with two or three at a time - put a rail on the other side of the stairs.
7. Running - to music or play tag.
8. Crayons - Scribble. Do not let him put crayons to his mouth.

Girl's Age - 3 years 6 months

G.M.S. - Not assessed

F.M.S. - 1 year

Perceptual A. - Preoccupied with Vestibular Stimuli and visual, no colour or numbers concepts.

A.D.L. - Not toilet trained - 1 year

Behaviour - Distracted, unrelating, disorganized, very disturbed.

She should do the following activities while seated in front of a small table on a small chair. Encourage her to stay at the table as long as possible and try to lengthen the time spent seated to at least 15 minutes. You may only be able to start out with 2 or 3 minutes. Vary the seated activities with the Gross Motor activities.

SEATED ACTIVITIES

1. Picture Book - talk about the pictures in the book; encourage her to turn pages one at a time.
2. Stacking Graded Rings - encourage her to take rings off and put back on. If she cannot imitate you, guide her hand to one activity, then let her try alone.
3. Pop-it Beads - encourage her to pull beads apart; after she can do this, try to get her to put them back together by holding her hands as she holds the beads.
4. Graded Cups - encourage her to pile the cups inside one another.
5. Hammer and Pegs - encourage her to hammer pegs; assist her by guiding her hand as she holds the hammer.

If she wants to twirl or spin or dangle anything, try using this as motivation e.g. hammer the peg then you can spin the wheel.

GROSS MOTOR ACTIVITIES

1. Music - Clap hands or march or run or jump.
2. Ball Playing - sit on floor, legs apart, roll ball back and forth.

If there are any questions, please contact me at the hospital.

Boy's age - 3 years 6 months

F.M.S. - all at 18 months, 2 at 2 years, 1 at 3 years

Perception - no eye follow, no awareness of shape or size, cannot match colors, poor body image, no number concepts, identifies simple objects.

A.D.L. - dressing - 18 months - toilet - diapers - eating - independent.

Behaviour - happy, cheerful, somewhat hyperactive, requires firm limits.

DIAGNOSIS: Spastic Diplegia

The following are suggested activities for him to do at home.

It is advisable to try to work for 15 to 20 minutes in the same place at the same time each day. A small table and chair are best for the table activities.

1. Ball play - throw
   - catch
   - stand against a wall, tell him to put his hands out in front, palms up, and watch the ball. Throw it gently to him.
2. Bubbles a) resting his head on back of chair, or chin on a table, blow a bubble and catch it on a stick; move it back and forth in front of his eyes, telling him to watch it as you move it in vertical, horizontal and circular patterns.
   b) tell him to pop the bubble with his finger as you move it.
   c) have him try to blow the bubble.
3. Pop-It Beads - pull apart
   - put together - help him put together the beads by holding both his hands as they hold the beads and help push the beads together; tell him to watch what he is doing.
4. Stacking Rings - take off
   - put on - let him choose bigger of two rings each time; he has to put a ring on.
5. Thread Beads - put wire or piece of wood on end of string - help him to put the bead on by holding one or both hands. Tell him to watch.
6. Crayon and Paper or Blackboard activities - encourage him to hold pencil, chalk or crayon in his fingers. Encourage him to imitate you making horizontal, vertical and circular lines.
7. Books or Pictures - or household objects - play a pointing game. You name the object or picture he is to find and he points to it. Show him what pointing is by holding and pointing his finger for him. Start with objects you know that he knows.

I hope you will find this useful. If you have any questions please call the hospital.

Boy's age - 3 years 8 months

G.M.S. - all at 21 months, 2 at 2 years - fearful, stiff, uncoordinated.

F.M.S. - all at 18 months, 3 at 2 years

Perception - see, hear, feel adequately, no size or shape discrimination, cannot match colours, no body awareness, fearful of space, follows with eyes.

A.D.L. - dressing, 18 months - 2 years - feeding - being fed - toilet - diaper, but verbalize needs - language - 2 yrs.

Behaviour - motivated but slow moving and somewhat apathetic - cannot follow verbal directions - short attention span - very dependent.

Home programme designed to complement hospital treatment programme where he is seen in a group.

The following are activities which could be done with him at home. Table activities are best done while seated at a small table. He should be encouraged to choose the activities he would like to do. Put them all out and ask him which one he would like to do next. He must choose one activity. Gross motor activities can be done after the table activities. Try to make them fun - use music - help him as much as he needs:

1. Barrels - unscrew; he needs you to give him the bottom piece, and then he puts the top on.
2. Crayons and Paper - draw line down and up; draw line across; make a circle or a ball; guide his hand if he is unable to imitate you.
3. Puzzle - single inset; he can do it with prompting to take next piece.
4. Stacking Rings - he can do alone; talk about biggest and smallest; he needs prompting to take the next piece.
5. Pegboard - put pegs into hole; take out; he can do this alone.
6. Cutting - you hold the paper; he holds scissors in two hands; you say "open", "shut" - "hold paper between scissor blades".
7. Beads - large beads; place a piece of coat hanger or wood on the end of the string put tape over this; he needs help moving the beads along.
8. Ball - roll between legs.
9. Jumping - bounce up and down, sitting on the side of an inner tube.
10. Marching.
11. Clapping hands - touching hair, eyes, hands, feet, etc. Use music.
12. Music - banging sticks together.
13. Crawling - under table; over chair; around table.

Girl's age - 3 years 10 months

F.M.S. - all at 18 months, 4 at 2 years

G.M.S. - all at 2 years, 3 at 3 years - good balance and co-ordination.

Perception - wears glasses, no shape awareness, aware of size difference, non verbal, unable to match colours, no concept of space, cannot draw man, but points to body parts, recognizes familiar objects, no number concepts.

A.D.L. - dress 2 - 3 years - feeding - 2 - 3 years
toilet - diapers - speech - 2 years - play - 2 - 3 years.

Behaviour - motivated, attentive, shy.

The activities suggested below would be best done at the same time every day, in the same place. Seated activities would be best done at a small table on a small chair, so her feet are on the floor, and hands resting comfortably on the table:

1. Paper and Crayon, or Chalk and Blackboard:
   1. Scribble vertically, horizontally or circularly.
   2. Vertical lines: try to get her to imitate you. Guide her hand to help her feel the action. When making the line, say "down", "down" as you do it.
2. Paper folding: Try to get her to imitate you folding a paper in half. Also try to get her to imitate you wrapping up a small object in the paper; folding the paper over the object.
3. Snip with Scissors: Small piece of paper, two inches wide; instruct her to open and shut the scissors; let her hold the scissors in two hands, and you hold the paper in between them for a start; when she can do this well, let her try holding the paper herself.
4. String Beads: Use large beads to start; putting a piece of thin dowelling or a piece of coat hanger wire with tape over it on the end of the string will make the stringing easier.
5. Barrels: Unscrew; in order to put them back together, hand her one half of each barrel and ask her to find the other half. Tell her to choose the top which fits the barrel bottom which you give her; then screw them both together. If she cannot do it on her own help her by putting your hand over hers as she holds the barrels.
6. Stacking cups: Take apart; put back together inside each other, or build a castle, piling one on top of the other.
7. Blocks: Build a castle as high as you can; have her imitate you making a train or a bridge with 3 blocks.

Girls's age - 3 years 10 months continued.

8. **Puzzle:** Basic shapes; take pieces out; help her to put the pieces back in by saying "yes" or "no", as she tries the piece in different holes. If she cannot do it, point to where the piece goes, and tell her to put it there; also encourage her to match the colours.

9. **Fine Peg Board:** Encourage her to fit the pegs into the board; see if you can get her to hand you one peg when she is finished.

10. **Bubbles:** Blow a bubble and catch it on a stick; move it in front of her face in a vertical, horizontal and circular pattern; tell her to watch the bubble. If she has difficulty holding her head still, let her place her chin on the table, or rest her head back against a high-backed chair. Encourage her to try and blow a bubble. When you are moving the bubbles in front of her, stop sometimes and encourage her to break the bubble with her finger.

11. **Walking:** On tip toe; marching and jumping can be done to music.

12. **Stand:** One one foot; make a game, trying to stand on first one foot and then the other.

The following are also activities which can be tried at other times of the day.

1. Unbuttoning medium buttons: it is good to practise on the coat of an older child which has been buttoned on to the back of a chair. First, she can stand in front of the coat, then try having her stand behind the coat as if it was on her.

2. Unlacing shoes: an old shoe of daddy's would prove ideal; let her put her foot into it, then show her how to untie a bow and pull the laces out of the holes.

3. Pouring with a pitcher: plastic dolls' dishes are ideal; this is best practised in the bath when she can pour and spill to her heart's content. Give her two pitchers, to hold in either hand and let her pour from one to the other, or put one on the side ledge and let her pour into that.

I hope these will be satisfactory. Please do not hesitate to call me if you have any questions: Montreal Children's Hospital - extension 303.

PROGRESSION OF ACTIVITIES SEEN 2 MONTHS LATER

1. Scissors - have her hold scissors in one hand, move them open and shut for her to give her the feeling, then let her try it herself. Fold the paper to make it stiff.

2. Blowing - plastic straw given to parents. Try to get her to blow bubbles in water.

3. Peg Board - Village Peg Board - buy as soon as possible.

Girl's age - 3 years 10 months - continued.

4. Start working on doing up buttons and putting laces in holes - use coat on chair in same manner as before, use large shoe of father or brother for lacing.

5. Toileting - still a problem, will now occasionally change herself or say when she is wet. Continue this way with no pressure on her.

Boy's age - 3 years 11 months

24 months on level

Behaviour - hyperactive - poor work habits - eyesight poor.

He is to work with his mother and his younger sister for 15 to 20 minutes each day, at the same time in the same place and at a small table on a small chair. While working with him, the mother is to continually remind him to watch what he is doing and should direct his head into the position to look if he does not comply. The toys are to be kept in a closed box and presented one at a time, each time returning the used toys to the box. All other interesting articles in the environment should be removed. If he pays too much attention to his sister and what she is doing, try to work with him alone.

ACTIVITIES

1. Peg Board - coloured button pegs, thin wooden pegs. Let him use either hand but direct him to watch what he is doing.

2. Form Board - single inset basic shapes, instructions for making, and cardboard to make it with, have been supplied. He will need some direction to explore holes in trial and error method to find shapes. After he gets the shapes into the holes with no difficulty, the form board can be used to match colours.

3. Single Inset Puzzles - same instructions as above; also encourage naming and identifying objects by doing, saying names of objects and talking about them. Puzzles should be made with familiar objects.

4. Colouring - a) encourage to scribble only on paper, b) guide his hand to make vertical lines, encourage him to do this himself, but stop if he cannot do it, c) circular stencil - guide his hand round and round the stencil, pushing against the edge. Then let him try it.

5. Hammer and Pegs - pegs which can be hammered from either side are ideal.

Educational toys may be purchased at major department stores and childrens toy stores.

Girl's Age - 4 years
G.M.S. - 3 months - 9 months
F.M.S. - 1 - 2 months
A.D.L. - Totally dependent
Behaviour - Good-humoured, placid.

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1. Sitting in chair for eating and watching T.V., feet supported, place bright toys, such as keys, ball or blocks on her tray.
2. Rolling over, passively.
3. Passive movement of legs -
   - a) Lift arms over head
   - b) Take arms out to side and roll out and in.
4. Passive movement of legs -
   - a) Take legs out and in.
   - b) Roll legs out and in, hold above knee joint.
   - c) Bend legs up and down.
5. Stretching of heel cord - Hold lower leg in palm of one hand, keeping knee bent, move foot up and down with other hand.
6. Place her on tummy, with her arms bent in front of her and her head lifted - let her watch T.V. or place bright objects, such as bell or keys in front of her.
7. Have her watch you blow bubbles, or dangle some moving keys in front of her.
8. Sit her on a low bench with feet on floor and back against wall, place hands on side of bench, play music and have her rock from side to side or back and forth. It may be necessary to push her gently.

PROGRESSION OF ACTIVITIES - 6 months later

Very minimal progress made - now helping to roll over.

1. Continue with same activities.
2. Have her lie on back and reach for an ice cream or cookie.
3. Stroke down her back to encourage extension, when she is sitting unsupported.

Boy's Age - 4 years 2 months

G.M.S. - 3 - 4 years

F.M.S. - 3 years

Perception - No number or colour concepts

A.D.L. - 5 years

Behaviour - Appropriate to disturbed hyperactive

"ACTIVITIES TO DO AT HOME"

GROSS MOTOR ACTIVITIES:

1. Throwing and catching a ball - hands in front, eyes open, do not lean against a wall or run right up to the other person.
2. Standing on one foot - hold his hand if necessary, try to increase length of time with one foot in air.
3. Jumping - on the floor, from a height, make sure he bends his knees before jumping and that he lands on his toes.
4. Marching.

5. Walking on tip-toe)
6. Sliding steps) ----- ALL OF THESE CAN BE DONE TO MUSIC
7. Skipping - one foot)

8. Walking on a line.

PLAY ACTIVITIES:

1. Colouring - starting to make forms - may try to imitate letters, or to colour in figures. Will not yet be able to stay within lines.
2. Puzzles - He can now complete 18-piece puzzles. The number of pieces can be gradually increased. Puzzles can be made from magazine pictures, cardboard and felt.
3 Cutting - Start with blunt edge scissors, someone hold the paper for him and just let him cut.
4. Barrels - or anything which involves screwing and unscrewing, such as nuts and bolts.
5. Blocks - Piling blocks.
6. Beads - Threading - work with small beads and shoe lace, start with large beads and wooden or wire threader.
7. Fine Peg Board. Peg Board with small holes and small sticks.

N.B. He will do all of the above activities better if he is seated at a table with his feet on the floor and his arms supported. Therefore, if he has trouble with any of the activities, place him in this position. He can do most of the fine motor activities by himself, but it would be of value if his mother supervised him for 10-15 minutes a day during the gross motor activities.

Boy's Age - 4 years 4 months - hemiparesis
G.M.S. - 3 years, poor balance
F.M.S. - 4 years - 5 years
Perception - Object poor, number and colour good.
Behaviour - Work habits good

ACTIVITIES

CO-ORDINATION:

1. Rolling - over and over.
2. Crawling - a) Two hands, two legs, simultaneously.
   b) Leg and hand on each side simultaneously.
   c) Alternate hand and knees.
3. Knee walking.
4. Kneeling to Standing - Standing to Sitting.
5. Running - after ball, with you, down the hall.
6. Stairs - Up and downstairs - down step tap - up step tap - very important to watch what he is doing, where he is putting foot. Hang on to railing.

BALANCE:

1. Kneel sitting - throw ball or bean bags.
2. Stand on one foot - alternating feet - hold one hand.
3. Jumping up and down - "one, two, three, GO"! "down and up" and "up and down" - rest and repeat.
4. Kicking Ball - start with him hanging on to a table or something. Kick with left foot.

IMPORTANT ATTITUDES:

1. Use right hand as an assisting hand - e.g.
   a) Hold things with it.
   b) Pick up and transfer with it.
   c) Keep on the table where he is working, not in his lap.
   d) Help put on his clothes with it.
   e) Put right hand in sleeves first.
2. Do not expect him to use it as he would his left hand; it also might tire faster than the other, particularly at first.
3. IN CO-ORDINATION AND BALANCE EXERCISES - Consistently point out to him to watch what he is doing - e.g. when climbing stairs, running or kicking.

Boy's age - 4 years - 6 months

G.M.S. - 21 months - 2 years - balance and co-ordination poor

F.M.S. - 18 months - 2 years - 1 at 3 years

A.D.L. - Dressing - 2 years; Feeding - 2 years; Toilet - diapers.

Perception - Sees and follows with eyes, unaware of size, shape or colour, unaware of one versus many, cannot identify familiar objects.

Behaviour - Quite disturbed, very hyperactive, fearful, unmotivated, very low frustration tolerance.

Home programme designed to complement hospital treatment programme when he is seen with his mother to try to help her control his behaviour.

Place him in high chair or kindergarten chair. Try to do the activities at the same time every day, in the same place. Keep the toys in a special box and only use them for this time.

1. Stacking ring: take off and put on, one at a time.
2. Stacking cups - take apart; say "take out" as he does it; "put together"; hand them to him one at a time and say "put in"; guide hand, if necessary.
3. Barrels - unscrew; screw together; put next barrel bottom on table and tell him to put other barrels in it. Then hand him lid and tell him to put it on and then tell him to turn it shut. If he does not do as you say, show him and if he still does not do it move his hands for him.
4. Puzzle - coordination board. Take all pieces out; give him one piece at a time to put back. Show him where it goes by pointing.
5. Pegs and Board - large one; take out; put in; give them to him, one at a time.
6. Pop-it Beads - pull apart; help put together by placing your hands over his, and moving them for him.
7. Stringing beads - long stick on the end of the string; big beads; help him put stick into hole, and pull bead along.

Girl's Age - 4½ years

G.M.S. - 2 - 3 years

F.M.S. - 2 years

Perception - 2 years

A.D.L. - 1½ - 4 years

Behaviour - Hyperactive, poor motivation, unresponsive to limits.

In the assessment, I did not make any reference to managing your daughter's behaviour at home, which I understand from the doctor's referral is of some concern to you. I think the best thing to say is that it is very important that she learns to manage her behaviour well in all circumstances and to follow a routine and play her part in family activities. This is important because good behaviour control will allow her to benefit from a school setting when she is old enough to go. The best way of doing this is to treat her and expect from her the same behaviour as you do from the other children. She will not be hurt if you are just as firm in regards to what you expect from her, in spite of her special needs and problems. If there are any specific areas of behaviour which are difficult for you to manage, please do not hesitate to write me and I will be glad to offer my suggestions.

The following are suggested activities for her. I would recommend that you try to do the activities with her at the same time each day in the same place. A small table and chair is the best place to do the small toy activities. Toys can be kept in a box and used only for these training sessions. Also, present only one toy from the box at a time. When she has finished with one put it away and bring out another.

1. STACKING RINGS AND PEG - Place rings on and off peg. She is not aware of size differences so hand her the rings in order of size, but also talk saying "this is the big one," "this is the small one," "this is the biggest," this is next and so on to the smallest. Also, put the biggest and the smallest beside each other and show her the difference.

2. PUZZLES - She is starting one-piece puzzles, similar to the ones here at the hospital. Puzzles of basic geometric shapes, or of familiar objects would be ideal. You can make puzzles out of cardboard (shirt cardboard if you get your husband's shirts cleaned). Use three layers, one as backing for pictures you cut out of old children's books, or magazines; one to make the outline cutouts of the pictures and one as the backing for the piece of cardboard with the outlines cut-out. Puzzles can also be bought. Playschool and Sifto both have a good set of single inset puzzles.

3. INTERLOCKING CUPS - Cups may be used for size discrimination, or colour recognition and for fine motor control. You can stack them into each other or pile them one on top of each other. If the series of eight cups is too many, use only half of them at one time.

Girl's Age - 4½ years continued

4. PEGBOARD - Try to find a peg-board with large pegs and one with small pegs, preferably pegs of different colours. Place pegs in holes, talk about matching colours and try choosing colours by matching them, e.g. place only red and blue pegs into box, give her the red ones to put into peg-board and talk about the fact that you are taking only the red ones like this; see if she can find one the same.

5. BILLY AND SEVEN BARRELS - Practise unscrewing the barrels and screwing them back together. Talk about big and little as well as matching colours of the two sides of the barrels.

6. PLAY DOUGH - Play dough can be used to pat and pound and roll into balls or sausages. It can be made with flour and salt, in equal quantities, add water until it is the consistency of bread dough, add food colouring to make it coloured. Keep it in a covered plastic refrigerator box if you want to keep it soft.

7. CRAYONS AND PAPER - Large sheets of paper can be taped to the wall. Encourage her to make large circular movements, as well as large lines up and down the page and across the page. Let her hold a crayon in both hands if she wants.

8. GROSS MOTOR ACTIVITIES

   a) Ball Playing: Rolling large ball back and forth while seated on floor with legs spread widely. Throwing ball back and forth, encourage her to hold her hands in front of her and watch the ball. Kicking the ball - back and forth.

   b) Music: Clapping, marching, touching body parts, walking forward, backward and sideways jumping.

   A march or waltz record. There are also many excellent children's action records on the market which are also fun to do. The fewer words on the record the better.

Girl's age - 4 years 7 months

G.M.S. - all at 3, 3 at 4, 2 at 5 years level

F.M.S. - 7 at 3, 3 at 4 years - poor eye hand co-ordination

Perception - poor eye follow, aware of big, biggest perception, basic form, can match but not name colours, unable to draw man, space relationship good, object concept poor.

A.D.L. - Dressing - 4 years
Feeding - 3 - 4 years
Toilet - 5 years
Play - 3 years
Speech - 2 - 3 years

Behaviour - Attentive, motivated

Early deprivation felt to account for lags in development in certain areas.

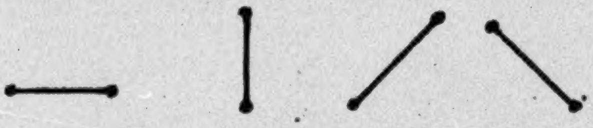
The following activities could be done with her and her little sister while their brother is sleeping. It would be best to try and do them in the same room in the same place each time. A small table and chair would be very good to work at. Keep the toys for this time in a box and put them away after each session. Work times can be between 20 and 45 minutes each day, depending on the time available. The children should be able to sit this long with frequent changes of activities. Each activity should be completed before a new one is started.

1. Paper and pencil or crayon activities:

   a) She can now make or imitate —|O and +. These should be practised.

   b) New things to learn to make are △ and squares. This can be done line by line. You make one, she makes the same one and so on. Or it can be made by joining dots.

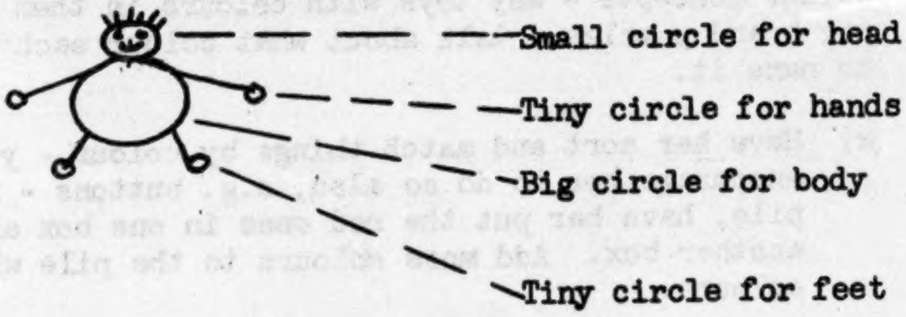
   c) Another good paper activity is to join dots making lines vertically, horizontally and diagonally.



Girl's age - 4 years 7 months continued

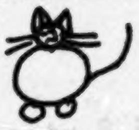
d) As she can make circles and lines, show her how to make figures out of them. The same way as the square and triangle - part by part.

e.g. a man



talk about what part you are making and the size of it.

e) a cat



2. Paper and scissors:

She can snip with scissors holding them in one hand. She can now learn to cut across a page. Start with about two inches across and work up to 5 inches across. After she can do this, she can start cutting on a line drawn across the page. When she can cut on a straight line, then she can start cutting on a large curved line. After this she can start cutting out simple shapes like circles, squares and triangles.

3. Numbers:

a) She can start to learn numbers by counting as she does things. For instance, counting as she goes down or up stairs, counting as she jumps, counting as she puts buttons into a jar.

b) She can also start to match quantities; for instance - put 5 pegs into a board, she puts 5 in front of yours, or you put out 3 buttons, she puts out the same number in front of yours. Work up, start with 1, 2, or 3 and continue higher as she can do the lower ones.

4. Naming objects and matching pictures:

a) A good toy or activity for this is picture lotto or play school interlocking pictures of objects.

b) Also you can make a scrap book, each page on one subject: e.g. a page of boys, a page of dogs, a page of houses, cars, toys, food, etc.

These can be found by looking through old magazines or children's books; you cut them out, she can sort them and paste them onto the page - start with 2 or 3 pages, add to them each day and start new ones as the old ones are finished. Talk about the pictures all the same, e.g. all boys and how they are different, some big, some little, some sitting, some standing.

Girl's age - 4 years 7 months continued

5. Colour concepts - any toys with colours in them are good, e.g. barrels, peg board puzzles - talk about what colour each piece is and encourage her to name it.

   a) Have her sort and match things by colour - you name the colour and encourage her to do so also, e.g. buttons - red and blue all in a pile, have her put the red ones in one box and the blue ones in another box. Add more colours to the pile when she can handle two colours.

   b) Have her put the pegs into one board in rows of different colours.

6. Puzzles:

   She can do single piece puzzles. She can start doing 6-8 piece puzzles but will need some help - discuss with her where the pieces go, what they are and even show her where they go, then let her do it herself. Simplex puzzles or Play School puzzles are both very good.

   The toys mentioned may be found in major department stores and speciality toy shops.

If there are any problems please do not hesitate to call me at the hospital at Extension 303.

Girl's age - 4 years 7 months

G.M.S. - 4 years

F.M.S. - 3 years

Perception - eye follow poor - 3 years

A.D.L. - 4 year 6 months

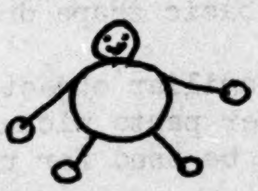
Behaviour - persisted good attention

The following are suggested activities for her. Try to do the activities as regularly as possible at a certain time each day in a specific place. A small table and chair is best for seated activities.

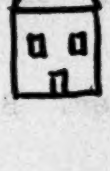
For future schooling it is important that she learns to be able to sit and work at a table for at least one hour. The length of time she spends seated can be graduated, starting with 30 minutes and gradually increased until she can sit for an hour.

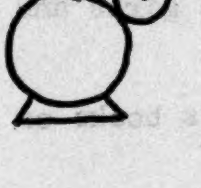
1. **CRAYONS AND PAPER**

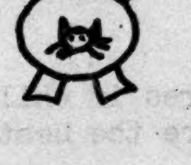
   a) **learning to make a circle and a cross**
   b) **after these have been mastered progress to squares and triangles**
   c) **then work on joining dots, to make vertical, horizontal and diagonal lines.**
   d) **after she can make the basic shapes, you can progress to basic shape drawing e.g. a man made of six circles, five vertical lines and one horizontal e.g.**

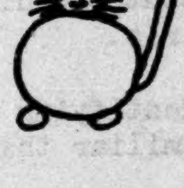


When she has mastered this she can learn to add more detail either on her own or with prompting. Other basic shape figures are houses and animals e.g.









e) Also start copying letters after shapes are mastered. In learning to make forms if the child cannot copy the form immediately, let her hold the crayon and you guide the hand to make the desired form. Also try breaking the forms down into stages, doing one line or shape at a time. For example with a square you make a vertical line then child makes one; then add a horizontal line at the top of the vertical line and child does likewise to hers and so on until the form is made. Another method is to use a different colour for each line or shape, telling child to copy form using same colour you did.

2. PAPER, PASTE, AND SCISSORS:

a) Scissors: The progression for cutting with scissors starts with snipping along one edge of a small piece of paper 4" x 4". After this is mastered progress to cutting off corners of paper, then to cutting across strips of paper 2" wide. Progress to cutting across 4" x 6" piece then try cutting on a drawn straight line. Next try cutting out geometric forms with straight lines on a small piece of paper. Then try curved lines, first across a corner. Then across small page. Progress to curved abstract shapes and finally to cutting out simple familiar object, e.g. apple, orange, cherries, ball, doll, cat, etc.....

b) Pasting and Placing

(1) Make a picture out of pieces she has cut out (abstract).

(2) Cut out geometric shapes for her, trace around these on a piece of paper to make a picture from the basic shapes (like those described for basic shape drawing).

(3) Cut out picture of familiar objects from magazines. Trace around shape, have her paste picture into outline. Make a scrap book which can be used for reading training.

3. READING READINESS:

a) Scrap Book - paste pictures of familiar objects onto a page e.g. one page of all different types of girls - fat, skinny, white, brown, sitting and standing. Print the word girl at bottom of page, talk about the differences between the girls and also that they are all girls.

b) Identifying pictures in children's books or magazines. Books about familiar things are the best.

Girl's age - 4 years 7 months continued

4. SUGGESTED TOYS FOR READING READINESS

   a) Puzzles - 8 - 20 piece puzzles

   b) Picture lotto - or picture dominos

   c) Barrels - Billy and his seven barrels

   d) Mini bricks

   e) Copying patterns on pegboards

5. NUMBER CONCEPTS:

First try to teach concept of one thing as compared to many things, then one versus two, and so on up the scale.

a) A peg board can be used very well for this type of activity. Tell her to put the same number of pegs into the board as you - but directly beside, in front or behind yours, so that you can compare yours or hers. Introduce counting into every day activities e.g. - set the table - take out 3 spoons, 2 forks, 1 knife etc....
- Walking up steps - count the steps.
- Stirring a jello - count the turns.

6. GROSS MOTOR ACTIVITIES:

These are fun to do to music or made into a game; take turns playing teacher. - She shows you some exercise to do, then you show her.

There are several children's action records on the market. See if you can find some, then include such things as marching, jumping, touching various parts of the body, rolling, going up, down, under or around things, galloping.

I hope this will be sufficient. Please write me at the hospital if you have any questions.

Girl's Age - 4 years 10 months

G.M.S. - 3 - 4 years

F.M.S. - 3 - 4 years

Perception - 2 - years

A.D. L. - 2 - 2½ years

Behaviour - Adequate, but unable to tolerate pressure.

The activities outlined below are to be done once a day with your daughter, at the same time, in the same place, for the same length of time. A small table and chair in a room by yourselves would be the most suitable arrangement if possible. She is to be encouraged to follow directions carefully.

1. Matching Colours - Match cardboard squares of five primary colours, red, yellow, blue, green and orange. Make about five cards of each. Start with all the red and all the blue in one box; then have her place all the red in another box. Say the name of the colour as she does it. When she can do this well, put three colours into the box and sort into two other boxes. Continue until you have used all the colours; then you can make squares of other colours - such as, brown, black, white and purple.

2. Matching Numbers - Use squares of cardboard again, all the same colours. Place one on table and tell her to place the same number on the table. After she can master the first one, progress through two, three, four etc.

3. Puzzles - Can do 6-7 piece puzzles. A puzzle of a man would be a good place to start. Puzzles can be made with cardboard. Glue a picture of a boy, man or girl, on to a piece of cardboard, then cut into pieces - i.e. head, arms, legs, body. Make an outline of the figure on another piece of cardboard. Cut out the outline. Glue a third piece of cardboard on to the back of the piece with the outline cut out.

4. Scrap Book - Make a scrapbook of familiar objects, pictures cut out from magazines, or books. One page could be many different kinds of boats, another different kinds of dogs and so on and so on. She could glue the pictures on to the pages. Talk about the pictures as you work, this is a big one, or a red one, etc.

Girl's Age - 4 years 10 months continued

PROGRESSION - next visit 4 months later.

SUGGESTED ACTIVITIES

1. Body Exercises - music - exercise show on T.V. - Me, Myself and I, Lets Play Musical Games, Songs for Special Needs.
2. Obstacle Course - lead her under, over, around, on top of, chairs and tables arranged in small course.
3. Scrap Book - cut out pictures of familiar objects. Have her paste them into a scrap book. Talk with her about each picture as she does it.
4. Matching Shapes - with bead threading.
5. Cutting out Curve on Corner - cut off corners.
6. Joining Dots - vertical, horizontal and diagonal.
7. Begin making Basic Shapes - square, triangle - do them one line at a time - join dots to make the shape - make the different lines in different colours.

Girl's age - 5 years

G.M.S. - 3 years

F.M.S. - 3 years

Perception - 2-4 years

Behaviour - Appropriate to work situation

The following are activities which are recommended for her. Try to do them at the same time each day in the same place. A small table and chair, so that feet touch floor and arms are supported is ideal for table activities. The toys should be kept in a large container with a lid and presented one at a time. Put away each toy as you are finished with it before bringing out a new one.

1. Stacking Rings - use to teach big, versus little.
2. Peg Board - little pegs ¼" hole and larger ones ½" hole. Use to match colours, or teach number concepts, starting with one, versus many, then one versus two, and so on.

Girl's age - 5 years continued

3. Small Beads - ½" in diameter or a little larger; thread according to colour and or shape.

4. Billy and his Seven Barrels - use for twisting and untwisting, matching colour, big versus small.

5. Stacking Cups - use to pile on top of each other as well as inside each other. If eight cups are too many to start with, only give 3 or 4 cups. Talk about putting little ones into big ones. Talk about colours of cups.

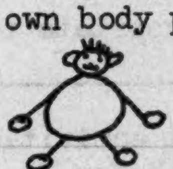
6. Puzzles - a) co-ordination board - basic shapes, circles, square, triangle, rectangle.
   b) single inset - familiar objects - like fruit, food, teddy bear, boy, girl's toys.
   Puzzles can be made using three pieces of cardboard, cut pictures or shapes out of magazines, paste onto cardboard and cut out. Then place forms onto cardboard, trace around them and cut out outlines from cardboard. Place third piece of cardboard behind outlines to make a background. The background can be painted or coloured black. When she can do single inset puzzle easily try cutting the objects into two or three pieces and then place them together to make a whole picture.

7. Books - turn pages, look at pictures and talk about them.

8. Crayons, Paper - washable crayons.
   a) Place paper onto wall, make bilateral circles, vertical and horizontal lines. You guide her hands; have her start the lines and circles at eye level.

   b) Imitate making vertical, horizontal lines and a circle. After this try making a cross + a square □ joining dots •——•

   c) After she can make circles and lines you can start to make figures using these. Start with a man, doing it part by part and talking about the man in relation to herself as you go. Also have her feel her own body parts or look at them in the mirror as you do them. In fact, drawing a man around her on the mirror with soap bar is fun. If you both work at cleaning it up afterwards.



9. Music - marching, jumping, tapping, swing arms or legs, walking with giant steps or baby steps or walking forward, backward or sideways.

10. Exercises to Direction Words - such as: up, down, under, over, beside, behind, in front of, take turns being leader after she learns the words.

11. Learning name of body parts - looking at body in mirror, watching it move in the mirror, games involving touching or moving body parts such as Simon Says.

12. Scissors, Paper, Paste - snip with scissors, holding in one hand. After she can do this well, try going to cutting a corner off the page. Let her use the pieces she has cut or fringed to make a picture, pasting coloured pieces onto another piece of paper.

Boy's age - 5 years 2 months

G.M.S. - 21 months - 2 years - stiff, unco-ordinated

F.M.S. - 18 months - 1 at 2 years - poor control and co-ordination

A.D.L. - Dressing - 2 years - 3 years
Feeding - 1 - 2 years (problem area)
Toilet - 2 years
Language - 50 - 60 words

Perception - Sees but no eye follow, tactilly defensive, fearful of space, aware of size differences, non-verbal, no space perception. No shape perception, cannot match colours, no number concepts, names familiar objects and parts of body.

Behaviour - rigid, perseverates, negative, distractible, motivation fluctuates.

Home programme designed to complement hospital treatment programme where he is seen in a small group.

The following are suggested activities for working with your son at home. Try the table activities at a small table at the same time each day. He should be seated on small chair at the table. He can stay seated for 15 minutes with repeated reminders to come back and sit down. Record and standing activities can be done immediately after the table activities or at another time of day.

1) Music or records - running - walking backwards - walking sideways - turning - swinging arms to music - bend over swing arms - clap hands bang sticks - touch different parts of body.

2) Jumping - from telephone book to floor; encourage him to bend his knees and jump using both feet - hold both his hands
- on a rubber tire or bed hold both his hands.

3) Simon Says - touching different parts of body. Take turns being the leader - You tell him to copy you as you name and touch parts of body. Then he names and touches whilst you copy.

4) Table activities

1. Building tower with blocks.

2. Building train and a bridge with blocks.

3. Look at books or scrapbook - name pictures, turn pages one at a time.

Boy's age - 5 years 2 months continued

Table activities (continued)

4. String large beads - put wire or piece of wood on end of string.
5. Paper and pencil or crayons - scribble - imitate horizontal, vertical and circular strokes.
6. Barrels - unscrew - you help him put them back together.
7. Stacking cups - pile one inside other - take apart.
8. Puzzle - single inset - form board or familiar objects.

Girl's age - 5½ years

F.M.S. - 2 years

G.M.S. - 21 months - 2 years

Perception - 1 year

A.D.L. - 2-4 years

Behaviour - somewhat dependent.

To be done thirty minutes each day - 15 minutes at table and 15 minutes to record.

1. Matching colours - coloured button peg board - sort and match colours then repeat names, also can do with clothing, etc.
2. Form Board - to be made from shirt cardboard, match shapes and colours, shapes to include circle, square, triangle, rectangle, 2 of each.
3. Single inset puzzles - to be made from shirt cardboard and coloured children's pictures of familiar objects.
4. Matching material and textures - various textured material pasted onto back of plywood rectangle, make matching pairs.
5. Matching sounds - plastic pill containers - place various small objects in them like salt, B. B.'s, peas, water, making matching pairs, seal tops and paint bright colours.
6. Circle Stencil - make from shirt cardboard - use coloured, large crayons.
7. Me, Myself and I - My Playful Scarf.
   - use Nothing to Do - jumping, marching, skating, tiptoe, spinning, touch toes and reach high, roll, clap and tap body parts.

Girl's age - 5½ years continued

PROGRESSION OF ACTIVITIES - return visit 4 months later.

1. Continue with same activities.
2. Form board, with graded circles and squares to replace co-ordination board.
3. Single inset puzzle of familiar objects to replace matching textures.

Return visit 3 months later.

Suggested new activities:

1. Matching Smells - use spices and familiar household herbs, etc. Put them on cotton swabs.
2. Crayon and paper - making a cross, make one line at a time.
   - joining dots to make vertical, horizontal and diagonal lines - go from left to right and top to bottom.
3. Size relationships -
   - a) big, medium and small circles, squares and triangles; arrange in order.
   - b) stacking rings, emphasize biggest - smallest, only give her two rings at a time and tell her to take the biggest each time.
4. Form Board - cut the shapes in half and have her put them together.
5. Continue with - sounds - colours - single inset puzzles - Me, Myself and I - ball playing - matching.

PROGRESSION OF ACTIVITIES - 4 months later

1. Simplex puzzle - six small objects with red knobs on them.
2. Stacking Bell.
3. Peg Board - ¼" diameter sticks - Village peg board is ideal.

Boy's Age - 5½ years

G.M.S. - 5 years

F.M.S. - 5 years

Perception - 4-5 years, lateral and directional difficulties

A.D.L. - 2-4 years, does not like dressing, toilet and grooming
5 years, speech - poor pronounciation.

Behaviour - Little distractible, reported very aggressive but not seen.

The following are suggested activities for him, to be done by the Home Care Worker when she visits the home. If possible, the activities should be done while seated at a small table on a small chair. He will need to have his attention span reinforced by continually reminding him to watch what he is doing. If he is unable to pay attention, put table and chair in a room with no other people and present activities from a box, one at a time.

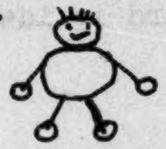
1. STACKING RINGS: Put graded rings on to a stick; help him to do activity correctly prompting him to put the biggest one on each time. If he cannot pick out the biggest one from the five rings, remove three of the rings, and let him pick the biggest from two. Add another ring each time he puts one on to the stick.

2. BILLY AND HIS BARRELS: Screw and unscrew; put barrels back together in ascending size order. If he cannot pick the biggest barrel from all of them, then only let him pick the biggest from two barrels.

3. COLOURED PEGBOARD: or coloured SQUARES OF CARDBOARD: 5 primary colours: red, blue, green, yellow, orange. Encourage him to pick out the coloured pegs or squares by name: e.g. put the red one here.

4. CRAYON AND PAPER: a) Divide the page into eight. You make a line in one box on one side - he makes the same line in the box beside it. Use vertical and horizontal lines, and circles. He is ready to start making a cross, but must do it line by line; e.g. you make the vertical line, he makes one; then you cross your line with a horizontal line, and he does likewise.

b) Draw-a-Man: Use circles and lines, but let him imitate you drawing man piece by piece, and talking about body part as you draw. Make man similar to this.



c) Joining dots: Joining two dots make vertical, horizontal and diagonal lines; e.g. you may have to draw his attention to the second dot; e.g. watch where you are going.

Boy's Age - 5½ years continued

5. CUTTING: Blunt scissors. He can cut across a page, so he is ready to start cutting on a straight line. Draw one line across a small piece of paper - 4" x 4" - and have him cut it in half. He should also try cutting on a straight diagonal line across the corner of a page so that he cuts off the corner.

6. PASTING AND PLACING: Make a design out of the pieces he has cut out.

7. NUMBER CONCEPTS: a) A peg board is very good for this. He can count to 4 now. Peg board can be used by telling him to put four pegs into board; then you put 4 pegs in and one more right in front of him. Then count yours to five, and have him count also, and add one more, the same as you did.

b) Stairs can also be used - counting the stairs as you go up and down.

8. STORY BOOK: He can speak in 3-5 word sentences, with poor pronounciation. He can identify pictures of many objects. Use one book by having him identify the pictures in the book and encourage him to tell you a short story about the picture. You will have to do this first - encourage him to imitate you.

9. DRESSING ACTIVITIES:

a) Button board, or large buttons on coat; unbutton first, then button.

b) Practice putting on shoes and socks.

c) Undressing doll completely.

Girl's Age - 5 years 6 months

G.M.S. - 3 years

F.M.S. - 2-3 years

Perception - 3 years - no number or colour conception

A.D.L. - 2½ years; cannot dress. Speech very retarded.

Behaviour - distractible; poor attention.

ACTIVITIES:

1. Puzzles - 6 to 8 pieces.
2. Matching Colours - Peg Board, Pieces of Paper, Socks.
3. Peg Board - small pegs.
4. Number Activities
    a) Count objects 1 to 5 and when she can do this have her try to go on to 10.
    b) Matching numbers of objects - e.g. place row of three blocks, have her make a similar row of three blocks.
5. Bead Threading - small beads, multicoloured, many shapes.
    a) Threading.
    b) Threading all the same colours.
    c) Threading all the same shapes.
6. Stencils - circle, square, triangle. Trace stencil and colour in outline.
7. Scissors -
    a) Fringing - cut the edge of the paper into small strings.
    b) Cut right across a five inch piece of paper. Instruct in easiest way of holding scissors.
8. Pasting and Placing.
    a) Paste simple shapes, such as circles, squares, rectangles and triangles on to outlines of circles, squares, etc.
    b) Also paste cut pieces on to a piece of paper to make a picture.
9. Crayoning -
    a) Copy square, triangle, rectangle, letters.
    b) Guide her hand over the shape before she makes it.
    c) Trace same shapes and letters; with letters make only capitals or small letters not both at once.

Girl's age - 5 years 7 months

G.M.S. - all at 3 years, 2 at 4 years level - balance poor on uneven surface.

F.M.S. - all at 18 months, 7 at 2 years, 3 at 3 years - left hemiplegia, cannot use left hand - no supination.

Perception - no eye follow, no perception of shapes - size discrimination, non verbal, good body image but does not draw a man - aware of one versus 2 - recognizes objects when named - total development below 3 years level.

A.D.L. - Dressing - all at 2, 4 at 3.
Feeding - all at 3, 2 at 4.
Toilet - 5 years.
Play - 2-3 years.

Behaviour - hyperactive, tactilly defensive - poor work habits.

Home programme to complement hospital treatment programme. Emphasis on two-handed activities to strengthen left arm, encourage supination and promote use of it, activities to strengthen legs.

The following activities are to be done at home as often and regularly as possible. They are designed to try and help improve the use of her left leg and arm:

1. Finger painting with soap or paint on window or mirror.
2. Sand play - pouring, pushing down; holding things in two hands, walking bare-foot in the sand.
3. Water play - two pitchers - two glasses or cups - pour from one to the other.
4. Pushing on the wall.
5. Banging two sticks together to music.
6. Wheel-barrow walk.
7. Playing guitar.
8. Duck walk.
9. Spider walk.
10. Throwing a ball.
11. To music - walking on toes, walking on heels, hopping from one foot to the the other (will probably need to hold on to her hand or wall), jumping - encourage to use both feet.
12. Inner tube - jumping, walking.

Age - 5 years 9 months

G.M.S. - 21 months - 2 years - fearful, poor balance.

F.M.S. - 18 months - 2 years - control and co-ordination adequate.

Perception - poor body image, poor space relationship, no size or shape concept, some object concept - 18 months 2 years level.

A.D.L. - Toilet - diapers
Feeding - 2 years - but drools.
Dressing - 2 years

Behaviour - very rigid - only does what she wants to. Temper tantrum, some motivation, poor work habits and inability to organize approach to activity.

Slight hypotonicity. Home programme designed to complement hospital treatment programme where she is seen in a small group.

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1. Brushing and Icing: cocktail brush - on the outside of arms and legs, and around mouth, down back, on either side of spine. Do this before sitting down to do the activities.
2. Barrels: take apart; put back together; give her the bottom barrels in order; encourage her to choose matching barrels to place on top, screw up, and start again.
3. Matching Pictures: trying to name and match pictures of familiar objects.
4. Small Pegboard: place pegs into holes; village pegboard has other shapes, and can be made small...houses and trees.
5. Jumping on a Tire: hold both her hands and help her bounce.
6. Ball Rolling: throw directly between your legs. She can direct the ball to you when told to.
7. Crayons & Paper or Chalk & Blackboard: making horizontal and vertical lines and circle or ball; say "up", "down" , "side to side"; "around" as she uses the blackboard. She may need you to guide her hand in shapes, if she cannot imitate you.
8. Obstacle Course: table, chair, box; use words with actions - on top, under, beside, in front; behind; around, up; down, as she follows you through the obstacle course.
9. Stacking Cups: give to her one at a time; pile inside of each other, or on top of each other. Colours of cups can be named as you do it.

Girl's age - 5 years 10 months

M.A. - 5 years 3 months

F.M.S. - 5 years - poor fine motor control

Behaviour - Very hyperactive, distractible

Perception - 4 years

G.M.S. - poor balance and co-ordination

The following are a list of suggested activities for your daughter. I would suggest trying to do them regularly every day while seated at the small table in her bedroom, at the same time each day. Try to get her to remain seated and attend as long as possible. If she gets up, take her hand and bring her back to sit at the table and do the work you have outlined for the day.

1. Paper and pencil: Divide paper into 8 sections. You make vertical and horizontal lines on one side; she makes them on the other; also do crosses and circles. When she can make these forms alone, progress to squares and triangles; then start making letters. Make new forms, one line at a time - you make a line, and she makes the same line after you. In making letters and complex shapes, also try using a different colour for each line and shape. She copies the letters, using the same colours.

2. Number concepts: One of the best ways of teaching number concepts is with a system called "Quisonaire", which can be purchased for about $10.00 at large department stores. Another method, is to use a pegboard: you put in three pegs, then instruct her to put the same number in the holes right in front of, or behind, yours. Then you count yours, and she counts hers. Discuss the concepts with her if she does it wrong. Start with 3 and 4 pegs, then progress to higher numbers when she can do this well.

3. Cutting: Cut with scissors in one hand if she can do it. If she cannot hold scissors in one hand, you hold the paper and she holds the scissors in two hands. Instruct her to open and close scissors, and show her that you are putting paper between the blades. Start with fringing paper, then cutting across corners; then cutting across 3" strips; then wider strips; then cutting on curved lines across corners; then curved lines across middle of page; then circles and eggs; then simple pictures.

4. Pasting and Placing:
   - (a) make a design with pieces of paper she has cut.
   - (b) paste pictures of familiar objects that you have cut out from magazines into scrap-book; for example, one page would be different kinds of boys; another, different kinds of cats. Write words at bottom of page and talk about differences between pictures.
   - (c) Reading: one of the best new "learn to read" series is the set of books by Dr. Seuss.

Age - 6 years 8 months

Minimal brain dysfunction - perceptual motor disturbance - activities for body image - complement a nursery programme - activities given to mother one year after other activities have started.

The following are activities which would be possible for you to try at home for a short period of time each day for 5 minutes with your daughter. They can be done to music or without. Try to make them fun and a game.

1. Walking on tip toes, marching, skipping on one foot, standing on one foot. She may need to hold your hands for extra balance. Jumping can be done on a car inner tube, if you balance the other side. Walking around the tube will also be good exercise for her. You would need to hold her hand for this.

2. Playing different animals: hop like a rabbit (bending down), jump alone on both feet; walk like an elephant (lean over, swing joined hands in front of you, like his trunk, and take big steps); take baby steps - one foot in front of the other, heel touching toe; skating - slide feet along floor like skating.

3. Simon says: You can take turns in being leader; first you, then her. As leader, you stand in front of her and say "Simon says: touch your ears; touch your eyes; touch your shoulder, or touch both shoulders" - and so on, through all the body parts. You touch the part as you say the words, and she copies you.

4. Obstacle course: table, chairs, boxes. Move through space and say the words as you do them. Can be done in "follow the leader" style. Go under the chair, on top of the table, down from the table, up on the chair, in front of the box, around the table, behind the chair, and so on.

5. Ball play: throw and catch; instruct her to throw to you; when you want her to catch, tell her to hold her hands out in front of her and watch the ball; bounce the ball; mark a large X on the floor with chalk; have her bounce the ball hard on top of the X, and then catch it.

I hope that these suggestions are suitable to your needs. Please call me if you have any questions.

Boy's age - 6 years 6 months - minimal quadriplegic

G.M.S. - 5 years

F.M.S. - 5 years - poor control and eye hand control

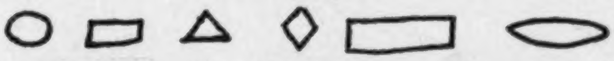
Perception - age appropriate

Behaviour - appropriate

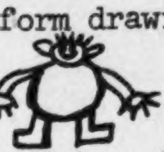
Attends normal kindergarten

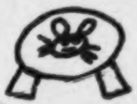
Suggested activities to help him with fine motor control.

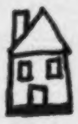
1. Fine Peg Boards.
2. Small multicolour beads - thread on strings, have him copy a pattern of colour or shape.
3. Stencils - Geometric forms, abstract forms, animals and letters. Use a felt pen when doing these activities as the feeling is increased as he is doing it.
4. Copying basic forms.

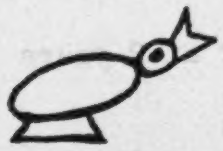


5. Basic form drawing.

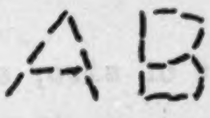
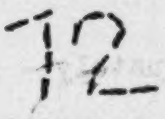








6. Joining dots - letters or numbers, or use a colouring book.

 OR 

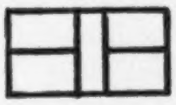
7. Colouring book, large simple pictures. Have him outline the picture first, then colour it in.
8. Simon says: Game involving imitating body positions. When Simon says "do this" you do it, but if he says "do that" you are "it" if you do it.

I hope these will help.

PROGRESSION OF ACTIVITIES - 6 months later.

1. Simon says: use direction words; up, down, etc. You direct, then let him direct.
2. Tic Tac Toe: you direct using space words to say where putting X, e.g. upper right, upper left, middle middle.

Progression of Activities (continued)

3. Chalk Board: red chalk, right hand; white chalk, left hand, have him move up and down and from side to side using both hands and dividing board into four 

4. Copy peg board or dot pattern.

5. Parquetry - copy pattern.

6. Sticker Book of basic shapes.

7. Magnet Board of Basic shapes - match shapes - talk about the differences and similarities.

8. Bubbles - blow bubble, catch on stick and move in vertical, horizontal, diagonal and circular pattern in front of him, telling him to watch with his eyes. Do this at 1 foot from his eyes and 3 feet from his eyes. If he cannot keep his head still, let him rest it back against chair or place chin on table.

Boy's age - 7 years 3 months

G.M.S. - 9 months - 1 year - balance poor

F.M.S. - all at 1 year - 2 at 2 years

A.D.L. - Feeding - 3 years
Toilet - 18 months - diapers
Dressing - 2 years

Perception - See, hear, feel adequately - no concept of size, shape, colour, number or objects

Behaviour - co-operative, pleasant, short attention, prefers gross motor to fine motor activities.

Spastic Quadriplegia and epilepsy.

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1. STANDING: bounce on the soles of his feet to stimulate standing erect.

2. STANDING AND KNEELING AND SITTING BALANCE: have sit, stand or kneel up tall and push gently from side to side and back and forth.

3. POSITIONING: sit on bench with legs apart, back erect and feet on floor at small table, with arms resting at table.

4. TO RELAX SPASM: shake arm or leg gently, holding lightly above and below elbow and knee.

5. TO ENCOURAGE HOLDING HEAD UP: stroke gently down back of neck and back.

age - 7 years 3 months continued

6. ACTIVITIES: seated at table:

   1. rocking horse (feet supported, two hands hold on)
   2. pushing heavy wagon
   3. barrels
   4. pegs and rings
   5. single inset puzzle
   6. thread beads
   7. pop-it beads
   8. tearing paper
   9. stacking rings
   10. stacking cups
   11. large peg board
   12. scribble with crayons; encourage to make lines and circles
   13. turn pages in a book.

NOTE: Encourage the boy to use both hands - one actively and one as an assisting hand.

7. EATING: Support feet while sitting at table; make sure that his arms are resting at a comfortable height.

Boy's age - 7 years 6 months

G.M.S. - 5 years

F.M.S. - 2-3 years

Perception - 2-3 years

A.D.L. - Independent

Behaviour - autistic.

The activities outlined below are to be done twice each day for fifteen minutes, in the same place at the same time. A small table and chair are best for the table activities.

1. Pencil and paper:
   (a) Have him imitate you making a circle, vertical line, horizontal line and cross - let him use a large crayon or a pencil. If he can't imitate, guide his hand, then let him try.

   (b) Have him press against the edge of a cardboard stencil, large circle and large square to make the forms.

2. Colour matching and naming - match pieces of coloured cardboard
   - match pegs on a coloured peg board
   - say the names of the colours and encourage him to name them.

Boy's age - 7 years 6 months continued

3. Pop-it Beads - take beads apart, put into box; put beads back together.

4. String small beads - multicoloured squares, circles and cylinders to be threaded onto a shoelace.
   - present the beads one at a time to him; do not give him the whole box.

5. Ball Playing - throwing and catch - direct to
   - throw to you.

Toys may be purchased at major department stores and children's toy stores.

Boy's age - 7 years 11 months - very limited vision

F.M.S. - 3-5 years

G.M.S. - 5-6 years

Perception - 3-6 years

Behaviour - motivated, attentive, somewhat verbal - educable, retarded in normal grade one - very limited sight - activities to further develop and improve tactile sensations - fine motor control, body image and object recognition.

The following are suggested activities to be done with your son in the home. He should work at least 15 minutes every day with any member of the family at any of the activities below.

1. MANUAL DISCRIMINATION OF FAMILIAR OBJECTS AND SHAPES - eyes shielded - use either a blindfold or a tray similar to the one you see in therapy - use any small object that he is familiar with. Make sure that he can identify the object before you give it to him so that the object can be again identified when the child is blindfolded.

2. CRAYON AND PAPER OR CHALK BOARD - tell where line goes to - across page or down etc., with two hands do lines from top of page to bottom of page - from the middle of this line go out to the side and then back to the middle - make a large circle in both directions with both hands. Divide page into 16 boxes. He is to stay in the same box as you. Have him imitate — + O ∟ ⊔ □ △ joining dots ⟍ •—• ⁞ . Draw a man using circles and lines. Talk about body parts and relationship of one part to another, under, at side, on top of.

3. MATCHING - naming and counting pictures of small objects; cut these out of magazines, or old children's books.

4. VERY FINE PEG BOARD - see if you can find one in toy store. The object for the child is to find a hole with the peg while holding peg in hand.

5. FINE PEG BOARD - Place pegs into top corner holes and while holding a peg in each hand work down to bottom.

6. BUBBLES - Allow bubbles to touch different parts of the child's body. As you catch each bubble, name the appropriate part of your son's body.

Girl's age - 8 years 5 months - Spastic Quadriplegia

G.M.S. - 18 months - walks with crutch - receiving physiotherapy

F.M.S. - 4 years

Perception - 2 years

A.D.L. - Independent

Behaviour - Organized, determined, independent

The following are suggested activities for your daughter to do in the home over the summer time. They are all table activities and are best done while seated in a small chair at a small table. She should have both her arms and her feet supported in order to work well - table and chair from C.P. Association.

SUGGESTED ACTIVITIES

1. Play Dough - rolling shapes such as bulk and sausages and making figures such as girls or boys, or animals like cats or dogs.

2. Cutting - She can cut holding the paper herself. She is learning to cut on a line across a small piece of paper.

3. Pasting and Placing
    a) She can make a picture using the pieces she cut out.
    b) Have the older children cut out pictures of familiar objects from magazines. Then on a piece of blank paper trace around the picture with a black crayon, have her paste the picture into the outline.

4. Make a Scrap Book - Paste pictures of things that she knows onto pages of a scrap book. Put several of the same thing onto the page - e.g. a page of girls, some standing, some sitting, some jumping, etc... Talk with her about the pictures, what is the same and what is different.

5. Children's Book or Magazine - Have her look through these and point out or name the pictures.

6. Drawing - Pencil and Paper or Crayons - Encourage her to make -, 1, /, O. You make shape first then she makes it. Drawing a girl - do it part by part - you make circle for head. She does it. Or else you make body and head and she adds rest of body parts.

Girl's Age - 8 years 6 months

G.M.S. - all at 15 months - 2 at 18 months - Spastic Quadriplegia

F.M.S. - all at 6 months - one at 9 months - 3 at 1 year - 1 at 18 months - one at 2 years.

Perception - hear, see and feel adequately - some eye follow - some body image - no size, shape, colour, number or object concepts.

A.D.L. - Dressing - 18 months
Feeding - 2 years
Toilet - 18 months - diapers
Language - 1 year

Behaviour - appropriate for low level of functioning, somewhat hyperactive, very short attention span.

The following are a list of activities and toys which are possibilities for your daughter.

1. Graded stacking rings - hand one at a time to her. Also, encourage her to pick them up herself. Help her to put rings on to stick in order, as well as encouraging her to put them on the stick herself.

2. Try doing the activities at a table and chair in front of a mirror so that she can watch herself.

3. Bubbles - blow bubbles for her. a) Encourage her to break the bubbles. b) Catch the bubbles and move them in horizontal, circular and vertical patterns, encouraging her to watch the bubbles. c) Catch the bubbles and touch parts of her body with them, such as hands, feet, face and hair.

4. Stacking cups - encourage and/or help her to take the cups out of each other and then to place them back into each other, giving her the right one each time.

5. Books or pictures. Pictures of familiar objects - talk about the objects and make the noise they make if possible, as she turns the pages.

6. Practise going upstairs one hand held.

7. Try to get her to imitate rolling a ball. Perhaps she will try this if she is in front of the mirror.

8. Try to encourage her to scribble with pencil, crayons or pens. Again she may be more activated in front of a mirror.

9. For feeding try using a dull fork to stab. Place into her mouth small pieces of cut-up meat or cheese or french fries. Also try using a Tommy Tippy cup with the spout top for drinking. This is a cup which does not tip over easily and has a cover with a spout (like a large straw) to prevent spilling.

If there are any questions, please do not hesitate to contact me at the hospital.

Girl's Age - 8 years 9 months

G.M.S. - 3-6 years - motor planning and co-ordination poor

F.M.S. - 5-6 years

Perception - good

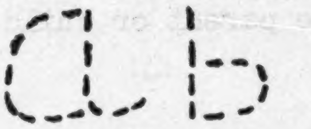
A.D.L. - Independent at 5 years level

Behaviour - good work habits.

ACTIVITY SUGGESTIONS:

1. Pencil and Paper:
   (i) Imitating squares, triangles, diamonds. If she has trouble imitating the form, guide her hand around it. Also, encourage her to trace the form.
   (ii) Imitating letters a,b,c, etc., use only capitals or small letters to begin with - divide the page into large lines, about two inches high. Also encourage her to trace letters, or make letters out of dots and have her join the dots to make the letter.

   e.g.:



2. Stencils: Make large stencils or circle, square, triangle and rectangle (can be made out of shirt cardboard). Encourage her to press pencil against edge of stencil to make the form.

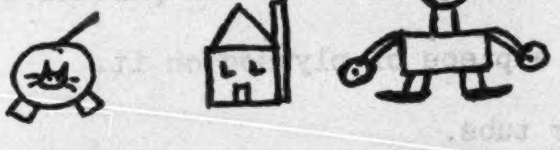
3. Cutting - Cut on a line straight across the paper to begin with - then cutting on a diagonal line - then cutting on a curved line; then cutting out a form, such as, a square or a triangle - then curved forms, such as, circles and half-circles - DO NOT MOVE on to the next step until she can do the one before easily.

4. Puzzles - 14-24 pieces.

5. Work Bench - With hammer, screwdriver, nails, screws and bolts.

6. Drawing or Colouring: Draw a man, or a house or animals from basic shapes, circles, squares, triangles.

   e.g.:



   Do each shape yourself first, one at a time, have her do the single shape after you, then proceed to the next shape. Do not do this activity until she can make the basic shape.

Girl's age - 8 years 9 months - continued.

7. Basic Shape Figures can also be drawn on coloured paper, one at a time. Paste cutout on to another piece of paper.

8. Bow Tying - Practise tying a bow on an apron in front of her explaining and doing each step clearly so she will understand.

9. GROSS MOTOR ACTIVITIES
(i) Practise standing on one foot, hopping, skipping on one foot, then skipping on two feet, -- can be done to music.
(ii) Different kinds of walking, trotting, galloping, knee walking, baby steps, giant steps, skating steps, stop and start steps. This can also be done to music.

COMMENTS:

The activities should be done as regularly as possible: e.g. at the same time, in the same place, and three days a week or five days a week, the same days each week. The seated activities would be best done seated at a small table in a small chair.

I would suggest contacting your local association for the retarded to see if they have any suitable parent or child programs in your neighbourhood.

Girl's age - 9 years

G.M.S. - 21 months - 2-3 years, balance and co-ordination very poor.

F.M.S. - 2 years - 3 year level.

Perception - 3 year level

A.D.L. - 2-6 year level

Behaviour - motivation to perform fluctuates, according to her mood and interest in activity.

The following activities have been demonstrated to the parents for their daughter.

1. Jumping on an inner tube with a piece of plywood on it.

2. Jumping on the rim of an inner tube.

Girl's age - 9 years (continued)

3. Jumping on the floor. (All jumping is done while holding both of her hands.) At all times try to achieve the correct jumping pattern, which is knees bent, knees straight and knees bent, or down up down. It is also important to land on the toes.

4. Ball throwing and catching - large ball, stand upright, no leaning against the wall.

5. Rolling the Inner Tube - stand upright, no leaning against the wall.

6. Moving on the Skate Board -a) lying on her tummy and pulling and pushing herself on the skate board. b) being pulled while sitting on the skate board.

7. Riding a small tricycle - a) out of doors. b) in a stand to keep it stationary while indoors.

8. Standing on one foot - stand in front of mirror, hold both her hands, count how long you hold in air.

9. Kneel walking - walk on knees to music or song.
   - hold one hand
   - do on bare floor or rug.

10. Balance Board - Climb on and off board, hold both hands, remove shoes while doing activity - walk one or two steps after she is comfortable getting on and off.

NOTE:

It is very important to make the activity easy for her. Provide her with all the support and help she will need for each activity. Only make the activity harder after she has succeeded in it easily several times.

The following activities may be used to replace activities that she can now do well that were included in the previous list.

1. Music - A march record or song on the radio.
   - a) Have her march to the music, forward, backwards and sideways.
   - b) Walk on tiptoes to the music.
   - c) March and bang two sticks as she is marching.

2. Crayon and Paper
   - a) Tape a large piece of paper on the wall and have her make lines from the top of the page to the bottom and back up, from one side to the other and back, and make large circles.

Girl's age - 9 years - continued.

b) Paper at a table - encourage her to imitate you making - one circle and - also make a man with her, part by part; you draw a small circle for the head. She draws one, then you make a large circle for the body and she does the same. Add lines for arms and legs and fill in eyes, nose and mouth.

3. Cutting and Pasting

Encourage her to cut on straight lines that you draw and then have her past the pieces onto a piece of paper to make an abstract picture.

4. The following toys would be recommended for her if you could arrange to buy them.

a) Billie and His Seven Barrels.
b) Peg Board - pegs ½" in diameter.
c) Single Inset Beginners Puzzles - single pieces that fit into a shape.

Boy's age - 12 years - poor co-ordination, good in the activities which he has had practice in.

F.M.S. - 5 years - shakey, poor control, lot of effort.

Perception - visual perception 4½ years.

Behaviour - motivated, attentive, difficulty copying appropriately, frustration.

These are suggested activities for him to do at home in order to help him with his fine and gross motor co-ordination. They should be done on a regular basis and not take more than one hour each day.

1. XBX - Air Force Exercise Programme - Stay at each level one week. If he has difficulty learning an activity, break it down into steps for him; do not go on to the next level if he cannot do all the exercises well. Watch that he moves his body parts separately, encouraging him to move only his leg or legs if that is required and not his head and arms also.

2. Ball playing, jumping, running - the more practice he gets in physical activities the better. Perhaps swimming or a Gym Club would be available at the local Y.M.C.A.

3. Eye Exercises - Shine a flashlight on to the wall, moving it from left to right, up and down, or in a circle. Have him follow the light with his eyes, not moving his head. Also, let him follow the light pattern from your flashlight with his own flashlight.

Boy's age - 12 years continued

4. Fine Motor Activities:

a) Threading small beads - after he can thread the beads well, have him copy a pattern in beads that you have done first - e.g. two red squares, followed by two yellow circles.

b) Peg Boards - small pegs ½", have him try to copy a pattern with the pegs, start simple, like one row along the top. If he cannot do the pattern, help him, by talking about where he is to put the peg in order to make the pattern, e.g. this peg goes, above, beside, or below the peg you just put in, but only one hole down.

c) Animal and geometric stencils - trace the animals and forms; they can also be coloured in after they have been outlined. Use a felt pen to do the tracing as it gives more feeling of what you are doing.

d) Animal and geometric forms. Trace around the forms, do not do this activity until he can do the stencils well. The forms are easier than the animals so start with them.

e) Completing the designs, or follow the dots. He can follow the dots fairly well but might need some help in completing the design accurately. Talk about the picture and where he should go next and what he should do in order to do the design more accurately.

If there are any questions, please consult me at the hospital.